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THIRD SERIES VOL 60 NUMBER 4 FEBRUARY 1953

# THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

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*Warehouse on the Exe Quay, Exeter, 1855*

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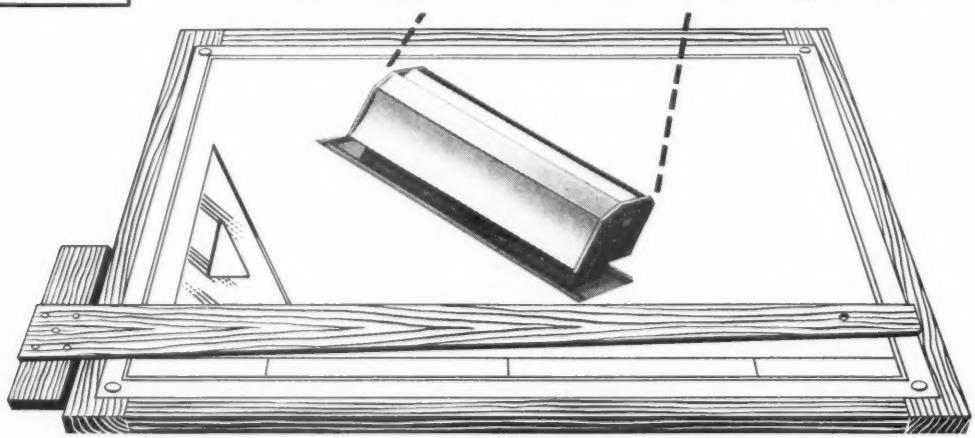

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# THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

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FEBRUARY 1953



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**Honorary Associates**

The Council have invited Sir Leigh Ashton, Sir Ernest Gowers, G.C.B., G.B.E., Mr. Eric Gregory and Mr. Gordon Russell, C.B.E., R.D.I., to become Honorary Associates and they have accepted.

Sir Leigh Ashton is Director of the Victoria and Albert Museum; Sir Ernest Gowers was Chairman of the Committee on the Preservation of Historic Houses 1949 and of the Harlow Development Corporation 1947–50. Mr. Eric Gregory, Chairman of Percy Lund Humphries, Publishers, and of the Ganymed Press, is Hon. Treasurer of the Institute of Contemporary Arts, Hon. Secretary of the Contemporary Arts Society and a member of the Standing Commission on Museums and Galleries. He is a Governor of Chelsea Polytechnic and St. Martin's School of Art. Mr. Gordon Russell is Director of the Council of Industrial Design, was Chairman of the Board of Trade Design Panel from 1943–47 and is the author of many books on furniture, decoration and industrial design.

**The Annual Reception**

The Royal Institute's Annual Reception will be held on Friday 29 May. Tickets will be 15*s*. each. Details will be announced later.

**Exhibition: 'Building in the Netherlands'**

At one time it seemed likely that the serious dislocation of life in the Netherlands because of the severe inundations would delay the arrival of the exhibition in this country. The Netherlands Embassy have now informed the Royal Institute that the exhibition is now fully prepared and after being shown for one day in Rotterdam will be dispatched in time for opening on 25 February as previously announced. We had hoped to publish some advance photographs in this Journal but these will not be received in time.

The exhibition will now of necessity have a note of sadness. Something like one-sixth of the land of the Netherlands has been invaded by sea floods and the damage, so the Embassy say, is far more severe than that of the war. Instead of being a proud record of achievement, the exhibition will be more in the nature of a programme for a still vaster work of reconstruction and rehabilitation.

**Direct Election to the Fellowship**

On the recommendation of the Royal Australian Institute of Architects, the Council have elected Mr. R. W. Voller [*A*], Past President of the Queensland Chapter, to the Fellowship.

**Honorary Corresponding Member**

The Council have invited Professor Jozeph Plecnik of the University of Ljubljana and a member of the Slovenian Academy of Science to become an Honorary Corresponding Member, and he has accepted.

**Care of Churches**

Following the note published in the January JOURNAL on this subject, the following letter has been received from the Secretary of the Central Council for the Care of Churches.

Dear Sir,

An increasing amount of interest is now being displayed all over the country in ancient churches and their preservation. This is partly due to the publication of the report entitled *The Preservation of our Churches* which explains present difficulties, and why it is necessary for the Church authorities to appeal for £4 m. for urgently needed repair work.

The Central Council has a very extensive collection of photographs, drawings, plans and records of churches old and new, running into something like 170,000. This already provides a mine of information which can be turned to without delay in the case of certain questions arising. The value of keeping records of all kinds need not be stressed. How often in the case of ancient churches have we longed to know what has been done to the fabric by Victorian and later architects, and we can find nothing.

The Council believes that in many architects' offices old plans of churches, reports, specifications and elevations may still be lying forgotten, which the firm is unlikely to need again for actual work.

All such records should perhaps ideally be kept by the parish among historical and valuable documents. But as there are usually no facilities for doing this properly in a church, it is suggested that any such records be deposited with the Central Council. Then, if and when repairs are required, it will be possible for the architect of today or tomorrow, to make use of such material if it exists. In cases where the architect does not wish to part with such plans or drawings, it would be useful to send the Central Council a note of what they are and where they are, which could be included in the file of survey material for the parish in question.

Yours sincerely, F. C. EELES, Secretary.

*Editor's Note:* The address of the Central Council for the Care of Churches is Dunster, Somerset.

### The Royal Gold Medal 1953

The news that Her Majesty The Queen had conferred the Royal Gold Medal for Architecture on Le Corbusier (Charles Edouard Jeanneret) was received just too late for the January Journal. It is customary in announcing the award, for us to give some account of the recipient's life and work, but in this case that is hardly necessary because no name—except perhaps that of another Royal Gold Medallist—is better known to architects throughout the world. That this is so is perhaps due more to his books and teachings than to his executed works. It was in 1923 that *Vers une Architecture*, with its dynamic, positive style and revolutionary ideas, exploded in the placid air of world architectural thought. Since then 'Corb'—as he is affectionately known among his admirers—has continued to arouse on the one hand extremes of adulation and on the other of execration, but there is a solid, steady, middle body of opinion which recognises the value of his ideas and outlook in this twentieth-century world. If he has done nothing else, he has at least made architects think deeply about the fundamentals of their art.

He was born in the Swiss town of La Chaux de Fonds, near Neuchâtel, in 1887 and, after studying at the local schools of arts and crafts and in the office of a local architect, he designed his first house at the age of 17. Subsequently he worked in the offices of Josef Hoffman and Auguste Perret—good beginnings for so original a thinker. In 1916 he settled in Paris where he has lived ever since.

His subsequent career hardly needs detailing. His books covering whole realms of art and living have been translated into many languages and are read by lay persons as well as by architects. His buildings, from the small villas of the twenties to great schemes such as the Palace of the League of Nations and the Unité d'Habitation at Marseilles, his town planning, first described in his book *La Ville Radieuse* and now being executed at Pallice-La Rochelle and Saint-Dié, are all inevitably studied by those who hold themselves to be progressive.

### Architectural Education

The Joint Committee on Architectural Education, set up in the spring of 1952, to consider the means of training and the standard required for qualification as Associate R.I.B.A., are now examining evidence received from more than 70 Allied Societies, Schools of Architecture, official and private architects and others.

The Committee wish to express their appreciation of the help they have received from so many sources and for the trouble that has been taken in submitting evidence. They regret that they are not able to consider any further evidence, since to do so might unduly delay the preparation of a report which the Committee are anxious to issue as soon as possible.

### The International Union of Architects

The Third Assembly and Congress of the International Union of Architects will take place at Lisbon from 21–28 September.

### Stone in Building and the Training of Apprentices

The Ministry of Works wishes it to be known that in all cases where building licences are being issued for work of value more than £25,000 and likely to involve stonework, the Ministry's licensing officers are being instructed to inquire of the architect the type of stone and the approximate amount involved, whether the stonework is for actual construction or for internal finishings.

This information is being asked for at the request of the Consultative Committee for the Stone Industry so as to assist the Committee in a periodical review of the licensing position as affecting the recruitment of mason apprentices. The Committee represents the employers and operatives of the stone industry and the R.I.B.A. and advises the Minister of Works. The Royal Institute invites the co-operation of architects in meeting the Committee's request.

Le Corbusier lecturing last year at the C.I.A.M. Summer School in Venice. Photo lent by Miss Olga Sims

### Formation of the Modular Society

The formation of a society to study modular planning and its application should help to advance the use of a method which is rapidly becoming common practice in American planning, though hitherto it has been used only sporadically in this country. The suggestion that such a society be formed was made by Mr. M. Hartland Thomas, O.B.E. [*F*] in his Alfred Bossom lecture 'Cheaper Building' at the Royal Society of Arts on 10 December last. There followed an inaugural public meeting on 23 January with Mr. Alfred Bossom, M.P., in the chair. A message was read from Mr. Howard Robertson, President of the Royal Institute, stating that the Executive Committee of the Council had agreed to his joining the society. A letter was also read from Mr. H. A. R. Binney, Director of the B.S.I., welcoming the society.

### Mock Arbitration

In response to many requests the Royal Institute is to hold a mock arbitration on Friday 27 March at 6 p.m. It is expected that a large number of members and Students will wish to attend and admission will therefore be by ticket only. Applications for tickets should be made to the Secretary, R.I.B.A., and envelopes should be marked 'Mock Arbitration' in the top left-hand corner. Until 20 March tickets will be reserved for members and Students of the Royal Institute and will be issued in order of application. After this date the remaining tickets will be available for others who may wish to apply for them.

### R.I.B.A. Diary

25 FEBRUARY–24 MARCH. Exhibition *Building in the Netherlands* at the R.I.B.A. Mon.–Fri. 10 a.m.–7 p.m. Saturday 10 a.m.–5 p.m.
TUESDAY 3 MARCH 6 p.m. General Meeting. *The Future of the Past: Some Thoughts on Preservation.* Osbert Lancaster [*Hon. A*].
TUESDAY 17 MARCH 6 p.m. Science Lecture. *Successes and Failures of New Techniques* by Howard V. Lobb, C.B.E. [*F*].
FRIDAY 27 MARCH 6 p.m. Mock Arbitration.
TUESDAY 31 MARCH 6 p.m. General Meeting. Presentation of the Royal Gold Medal to Le Corbusier (Charles Edouard Jeanneret).

# Landscape and Architecture

By Peter F. Shepheard, B.Arch. (L'pool), A.M.T.P.I., A.I.L.A. [*A*]

Given before the Royal Institute of British Architects on 6 January 1953.
The President in the Chair

I CHOSE THE TITLE Landscape and Architecture for my talk a long time ago to leave myself free to deal with one of several aspects of this vast subject, and not knowing which would interest an audience of architects. In the last few days I have decided that probably the best thing I can do in this short time is to give you my ideas, for what they are worth, about the difference between the landscape architect and the architect.

Up to the 18th century, the idea that these were two separate personalities would have been surprising, not to say shocking, to any well-intentioned architect, and even to those people such as Capability Brown who, although they actually worked mainly as landscape architects, regarded themselves every bit as much architects; indeed Brown, as a recent book by Dorothy Stroud showed, was even more of an architect than we have been accustomed to think.

But I think that in the increasing specialisation which has affected all professions, there is a very strong case for separating out these two methods of working, these two techniques. The fact that you see in me one who is trying, probably unsuccessfully, to combine both, is something that I want you to put out of your heads. I am now talking about this one half of my dual role.

It is true that the landscape architect and the architect are both dealing in the same commodity. They both work by the exercise of the visual imagination, they both produce an environment for living; any traditions and rules which are valid for one are also valid for the other. But there are enormous differences in technique. Probably the two great differences are, on the one hand, that the landscape architect is dealing with what is already there, with what has been called the *genius loci*. A building is a new hole in the sky, but a landscape is always fundamentally what is there already, altered in some way. The other great difference is in the materials with which they deal. A landscape architect deals first with constructions which are incredibly simple compared to those which an architect uses, and second, with plants which are, as I hope to show, one of the most intractable of all building materials.

The fact that the landscape architect's constructions are simple does not mean to say that they are any easier to understand, and I should say that, speaking now as an architect, architects on the whole are very ignorant of them. These simpler kinds of construction—how to make paving which will last more than a few years, how to construct steps and paths and fences, and the rules which go to their design—are largely not taught in architectural schools, where students are busy designing much more complicated things.

When we come to plants, the subject is so vast that it is almost impossible for anyone who wants to perfect himself as a designer really to know enough about his material. The people who really know most about plants will always be those who grow plants as a business, the nurserymen and plant breeders; and I do not think that any landscape architect can ever hope to equal their knowledge. But he must at least know enough about them to use them in his designs.

The differences are fairly obvious but, again, astonishingly ignored. First of all, plants grow and change. What could be more obvious than that? Yet if you work for an architect as a landscape consultant, you usually find that he regards plants as things that can be rolled out on the ground like so much wire netting, or put up by the yard, immediately.

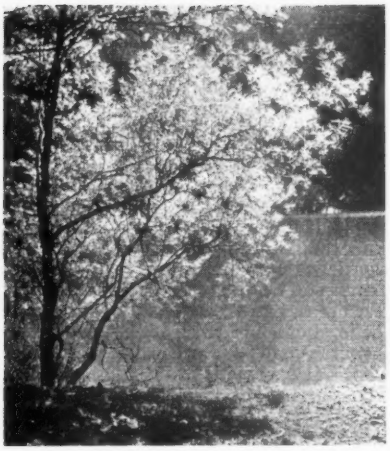
Then, plants change with the seasons; but in most architects' sketches plants are shown as absolutely finite and often very stylised patches of black, green, or red; something which stays the same, apparently, all the year round. Then there are the soil and climate requirements of plants. Here, one can only hope to know enough about those plants which inhabit one's own soil and climate, and even amongst those there are so many subdivisions—the plants that grow on chalk, or on clay, the plants that will tolerate wind, or will not tolerate frost, and so on—that this subject alone is worth many years of study.

Then there is the astonishing difference of texture and colour of plants, and their reaction to light. Building materials reflect light in regular, predictable ways from fairly regular surfaces, but plants absorb light or reflect it in a host of different degrees. There can be plants as white, for example, as a white poplar tree when blown by the wind, or as dark as a black yew in a churchyard. On the whole, plants are darker than building materials as they tend to absorb light. They also, of course, transmit light, and you can have a plant which is a large three-dimensional object in your composition lit up from behind so that it burns with light in a quite different way to any ordinary building. So that the actual placing of a plant in relation to light—the placing of plants to be lit from behind, for example, so that they are seen against other darker plants—and so on, is a vital element in their proper use.

To gain knowledge of this kind seems to me to be the first difficulty of training landscape architects. I do not think that the working knowledge of the few thousand plants which the average landscape architect needs, and the intimate knowledge of the few hundreds which are his own special favourites, can be gained except by someone who is in love with plants from the start, who starts to be interested in them as a child. In fact, my only possible claim to be called a landscape architect is due to my own indecision as to which of the two professions—architect or botanist—I should take up when I was young. Anything which I have acquired and which is worth knowing about plants, goes back to my very early days—and I still, as I have already said, know next to nothing compared to a good plantsman of a great nursery.

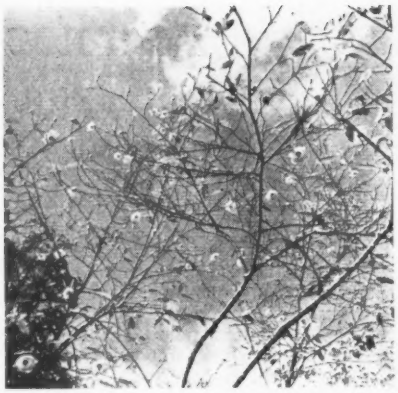
In addition to these differences in the nature of the materials of which landscape is made, there are differences in design and technique which I should like to point out. First—and this seems to be so important that it is the prime stumbling-block of all students when first facing a landscape project—is the immense increase of scale immediately one comes outside a building. Instead of dealing with units or rooms of, say, 15 to 20 ft. square, one is suddenly dealing with hundreds of yards in all directions, even in a small scheme. It is really a very difficult matter, I think, for the average architect who has become myopic, so to speak, in his conception of scale by working on buildings, to adjust himself to the scale of a landscape, even quite a small one like a housing scheme. Just look at the size of, say, a park seat on the average student's drawing. You will find it is always about 20 ft. long.

Second, in landscape one *must* work in perspective. (And so too one must if one is an architect; I believe that no good architecture is done, even down to the last door-knob, unless it is drawn in perspective.) But in landscape, you have not the advantage, which you have if you are designing a building; with that you can get *some* kind of an idea what it is going to look like by drawing an elevation. An elevation of a garden is a plan of a garden, and gardens designed in plan perhaps look good from an aeroplane, but will never look good from the ground. This is so important that it cannot be over-stressed, and it is vital for the student of landscape to gain a facility in drawing perspectives, both by accurately setting them up and by sketches. I believe that if one is designing a fairly large space which has trees and other objects laid about in it, and paths and fences, all the major objects should be set up in perspective from one or two important viewpoints at least; and from those



A willow tree lit up by the sun from behind. Many trees are most beautiful when placed to be seen thus against other trees or buildings in shadow

Another scene of natural luxuriance: plants of the year in the bed of an Exmoor stream in July. By autumn they will have been swept away



Magnolia Wilsoni, one of the most beautiful of all trees: the more beautiful because its flowers look down at you instead of up at the sky, like those of other magnolias

Large-leaved plants have always held a special attraction for me. This huge gunnera at Abbotsbury grows leaves so vast that one can stand beneath and see the sun shining through

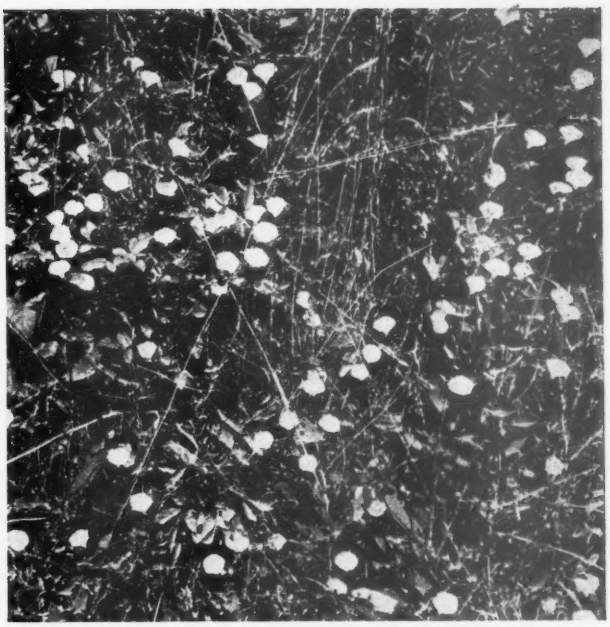
first set-ups you should do a large number of other sketches to satisfy yourself about the details. You will see at once that a path with a very gentle curve, which looks almost straight on plan, will be sharply bent in perspective when seen from 6 ft. above the ground. The same applies to one's paving patterns, which take on sudden and unexpected designs. The same applies to the views of trees, which one always shows on a plan as a series of green circular cushions lying about in pleasant patches, whereas when one sees them from the eye level, which is all-important, you look through their stems, and they erect their three-dimensional forms high in the air and allow you an unlimited view of the ground between their trunks.

This eye-level view is all-important and, particularly with regard to fences, it cannot be over-stressed. A fence which is 4 ft. 6 in. high leaves the whole countryside in the human view. A fence which is 5 ft. 6 in. high obscures the whole countryside from the human view. When I was a boy, I used to know the countryside of North Wales, especially a little place in the Cambrian Hills. I remember that when I was eight years of age, it was a cosy, sheltered landscape, full of deep ferny lanes in which one was shut in from the outside world; I went back there when I was 15, and I could see over the little sharp hedges and deep ditches. The whole place looked bare and barren, a northern landscape, quite different from before. That essential difference of a foot or two in one's eye level had transformed the whole character of the place for me.

One's whole design is a collaboration with Nature. Nature will come into the design, either as a partner to it, constantly improving it, as she has done with Capability Brown's designs—you remember how he was called 'Dame Nature's Second Husband' by Walpole—or she can also come as a destroyer. It is interesting to think, for example, of the Italian Gardens of the Renaissance—which presently you may realise I like a little less than I ought to—and to wonder how much of their charm, which is strong, is due to the overgrowth of Nature on the essentially rather orderly and vulgar Renaissance idea. What did the Villa d'Este look like, for example, when it was first planted? It is almost inconceivable to think how it has altered, by the huge growth of its cypresses and the moss and ferns which veil its stones; certainly it was once quite different from what it looks like now. Probably of all the gardens which have been preserved from historical times, only those of Spain and the Orient, especially Japan, have survived in anything like their original form.

The last thing I want to talk about is the design of plants themselves. Plants are, as one cannot emphasise too strongly, natural objects growing and having their own life, but they are subject to laws of design. Even in Nature itself you find very definitely marked associations of plants; so constant are these associations or groups that they have been given names by botanists. The sort of things I mean are plants on a heath, where they are all of the same wind-blown kind, designed to withstand an acid soil and to live in a certain environment; or the plants on a seashore, where you get a very arid, sunburnt, stony ground, which has altogether a very strange, separate flora, bright and full of the colour of the sky and the colours of white stones and sand. In any of these natural associations it is perfectly easy to imagine utterly incongruous plants growing. One could not imagine a foxglove growing on this shore landscape, and neither could one imagine suddenly finding one of the chalk-loving shrubs growing on a heath. This striking incongruity, which Nature always avoids, often occurs when plants are artificially introduced, and is the cause of many failures in design. One can break these natural rules only too easily, and I think it is very difficult to find out just what the natural rules are. I imagine that one of them, for example, is that, in Nature, flowers—brilliant displays of flowers or lavish colours of flowers—in a temperate climate such as ours, are only found in sheltered places. The English landscape is a green one on the whole, and here and there, in ditches or in sheltered areas, you get a great display of rather lavish colour, but you do not get it in the open. It seems to me that one of the first principles of using flowers in landscape is that they should not be seen from a distance. The flower itself, after all, is a thing which is designed for the eye of a bee rather than that of man—a thing which needs a close inspection and a certain amount of cutting off from the surrounding landscape to be seen to its best advantage. The most beautiful flower, such as the common geranium, which is a wonderful plant, can look like so much red flannel when slapped down in the middle of a large open space. You do not get any of its charm, or the way it grows its flowers or hangs its buds down before they open. All that you get is a patch of red, which you could get almost as well by rigging up a sail. One could talk for ever about the many other differences. The fact, for example, that you cannot have quick results although quick results are what all clients expect; but landscape must be planned in a time sequence—it is more like setting off a firework show than the finite creation of

Bryony growing in a hedge—a precarious and temporary balance in the struggle for existence. To arrest and make permanent such natural luxuriance is a first aim of gardening



Natural pattern: the field convolvulus making its own wonderful pattern, which emerges from the forces of its growth in the grass

a building or a work of art: you set a match to it and must leave it to develop on its own. Or I could give instances of my own preference for the informal, the free, the romantic tradition of English design, as opposed to the ordered, formal, classical tradition which stems from the Renaissance. It is the former, I think, which has the greater application to the sort of landscapes we want to create in our modern towns and countryside.

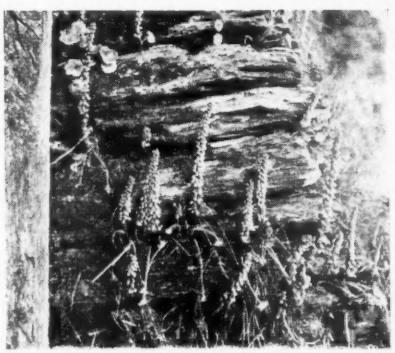
But instead of talking more, I want to show you some slides. First of plants, to show how they grow, and to jog your minds out of their rectilinear architectural preoccupations. Second, of how to use the natural growth of plant forms in present-day situations, in towns and housing layouts. Third, of some of the old gardens of Spain and of Japan, in my opinion two of the greatest founts of inspiration for the modern landscape architect.

*Mr. Shepheard then showed his slides, of which a selection is reproduced here, with a shortened version of his comments on each.*

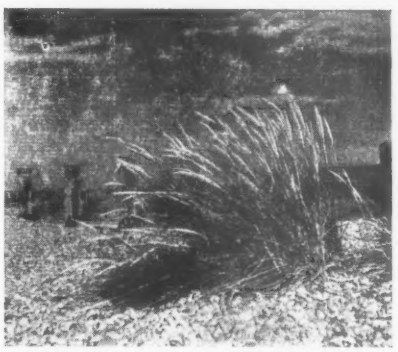
## DISCUSSION

**Mr. G. A. Jellicoe, M.T.P.I.** [*F*]: Mr. Shepheard perhaps did not care for the Renaissance, but we must agree that he is a modern example of universal man, and we have seen how he has been able to be a completely different personality from what he might be in some other parts of his professional life. He is the most versatile person. He is one of the few people who is able to understand and to appreciate more than a single kind of art.

The fact that he can span this difference between the art of architecture and the art of landscape architecture is a remarkable feat, because they are different points of view. One is, basically, a different kind of art from the other. I have often tried to separate the two and have said, 'Here is the dividing line. Here is the house, and here the garden begins'; but none of them was successful until I satisfied myself—but nobody else—that one might be able to trace these different arts to two basic sources in the human being: one, the need for shelter; the other, the need for food.



Some plants grow alone: the wall pennywort, a plant designed to grow against vertical rock faces, and almost incapable of growing elsewhere. In gardens such plants need a carefully prepared place; the Japanese understood and loved this kind of plant

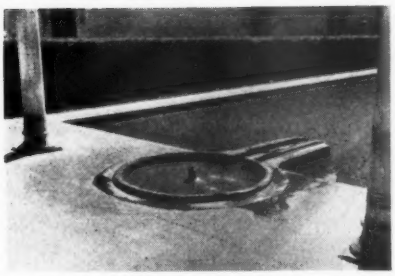


Another solitary plant: the marram grass, a plant of sandhills and shingle beaches

The great art of landscape is based on organic form, as Mr. Shepheard has shown, and the great art of architecture is based on the law and order of the universe. It is fascinating to look back in the history of architecture and of landscape to see whether there was a moment when the world was divided on this question. I think the dividing point was Palladio's Rotunda of Vicenza. Before that time man, in his architecture and in the Renaissance gardens, was out for the imposition of his personality upon the landscape. I cannot agree that the Italian Renaissance gardens are not very fine—I think they are; but they are a point of view that does not belong to the present day.

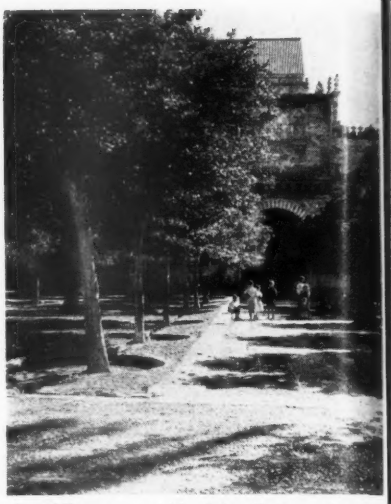
From Palladio you can see a steady line, through Capability Brown and others, of the development of land, as one art, and the development of architecture, as another, until you arrive at Le Corbusier. His art is placed on the ground in a biological environment, an art based on food.

During this enchanting and extraordinarily attractive talk there flashed across my mind the thought that it might be better if there were no human beings there at all, but that all be left to Nature? But Nature can become a jungle; it is man who has to create an art; and this organic art, rising from plant forms, is one of the



The Patio of the Myrtles, the Alhambra, Granada. One of the simplest and most beautiful gardens in the world

The Cathedral Square at Seville. Orange trees and fountains, with tiny water channels making a pattern in the paving



A public square at Cordoba. Patterned paving, with irrigation channels to water the orange trees

*Photos on this page: Gordon Michell [A]*

greatest arts in the world, and the one in which the world is least experienced. I think the Japanese is the greatest of these organic arts.

Our great problem of the future, in which Mr. Shepheard is one who has already advanced the art a long way, is this fastidious, sensitive relation between the art of shelter and the art of planting and of organic environment.

**Dr. W. F. Fox, F.R.C.P., V.M.H.** (Hon. Secretary, Roads Beautifying Association): I am reminded of a parson who, when he was ordained, was told by the Bishop, 'You will find your congregations of three kinds: those who listen to the text and then, frankly, go to sleep; those who listen throughout in a spirit of carping criticism, and those who listen in a state of devout idiocy.' However much you may appreciate Peter Shepheard, I have not noticed any devout idiocy, and I have not heard anybody snoring, but what I do complain about is that he has given us so little chance of carping criticism.

The only thing I should like to cross swords with him about is when he says that Nature does not show brilliant colours out in the open. One has only to see a gorse common—and it need not always be a gorse common in England. I have seen gorse growing at the extreme end of South America, which beats all Devon commons, with a profusion which is staggering. The Alpine plants, with their bright splashes, are another example of the profusion of colour.

Mr. Shepheard rightly stressed the importance of restraint. One is so apt to over-plant, and it is hard to know where to stop.

It is quite clear from his photographs and from what he said that he loves his subject; one could not help noticing that. He tried to disguise it as much as possible, but it came oozing out every now and then; it was a beautiful lecture.

**Mr. D. A. Wren** [*A*]: I should like to raise one really practical problem. Most of us architects and most gardeners think in terms of trees and plants by their English names. All nurserymen and naturalists think in terms of Latin botanical names. I would suggest that some sort of phrase book, rather on the lines of a continental phrase book, would be a great help to the architect in dealing with these problems.

**Sir Patrick Abercrombie** [*F*]: I came rather expecting that Mr. Shepheard was going to talk about something quite different. I thought that he was going to talk about the modern problem of architectural buildings in the landscape and the changing landscape that we are suffering from today, and as to whether it can absorb modern architecture, which I believe it can.

He gave us something very much more interesting. It was the elimination, almost as far as he could, of architecture strictly and the emphasis on growing plant life which was so delightful. There were those delightful pictures of mere growth itself, without any training at all. It is true that he showed later how a friend of his had tipped his ivy to keep the effect permanent, but the most interesting aspect of his lecture was his appreciation of simple, natural growth and the extent to which it is possible to introduce that in a more permanent form into our compositions. That, I think, showed the subtlety and the difficulty of the art of the landscape designer as Mr. Shepheard has exposed it to us.

I should like to differ fundamentally from my friend Jellicoe. I think the last thing the lecture had to do with was shelter and food. That is why I liked it so much. The little of building that came into it was purely the effect of certain geometrical shapes and forms, and the plants that he dealt with were anything but food-producing plants.

He might, of course, have given us a talk about the wonderful effects you get now from the increase in arable cultivation in the downland areas, where instead of a perfectly plain, simple green background—in itself an entirely artificial creation—with sheep eating away various primeval growths, you now get a variegated pattern of what Housman called 'the coloured counties'. That has spread all over England. That is what fooled Mr. Jellicoe: some of the best colours we do not eat.

But what Mr. Shepheard really showed us, and what, I think, were so valuable, were those wonderful effects which you can get with quite simple growths—the growths that one's gardening friends generally say are horrible things that ought to be thrown out of the garden. That is the sort of thing Mr. Shepheard has been showing us: the enormous value of letting Nature, first of all, assert itself, and then a little bit of human coaxing to make permanent an unexpected natural effect.

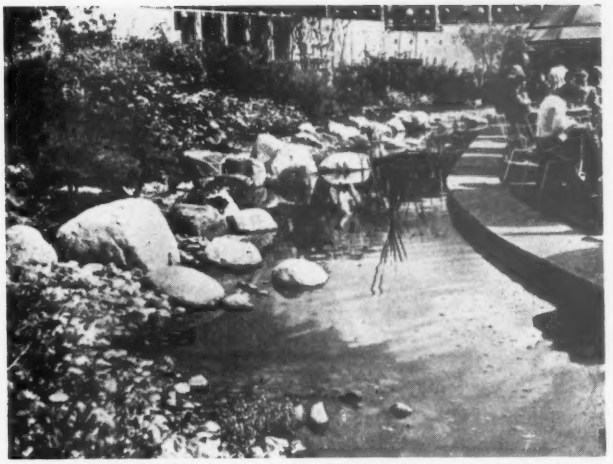
I have always believed that a great deal of the Japanese garden came originally from China; and one can see in some of the early Chinese pottery the early designs of actual landscape by the Chinese. I do not know whether it is anything much earlier than 15th century, but it is an interesting historical point as to who originated that type of garden—a conscious, elaborate and picturesque irregularity, using natural materials and natural forms.

**Miss B. Colvin** (President, Institute of Landscape Architects): The kind of gardening Mr. Shepheard has shown us is the objective we should make for. My own feeling is that the easiest form of gardening for most of us, and what we have to aim at in the future, is nothing much more than a mild interference with Nature. That is what I aim at in my own garden for the sake of less trouble in maintenance.

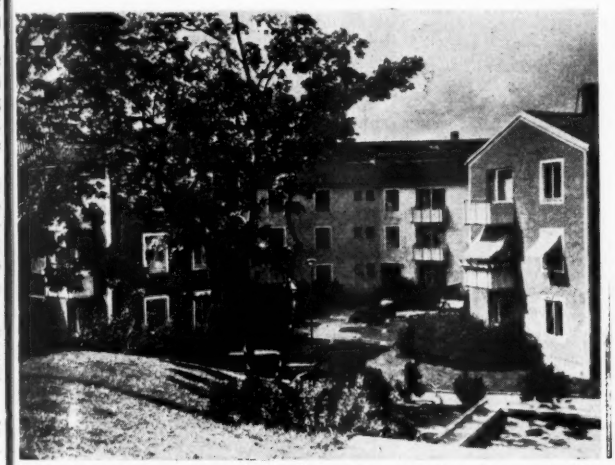
But the designer has a difficulty; he has to plan for a garden which is going to be looked after by the orthodox gardener, who does not understand our ideas at all and is not happy unless he can rake out all the weeds and replace them with antirrhinums or geraniums. The kind of gardening Mr. Shepheard has been discussing is something which Nature has to be left to do a great deal by herself. Unless the owners are going to do it themselves, or professional gardeners are going to learn what we are aiming at, I wonder how far it will be possible?

The Swedish gardeners are much more sensitive about little plants that spring up along steps and in little corners than we are. They do not pull them up and insist on having geraniums put in. I often saw there lovely foliage plants, such as the megasea.

A scene of artificial luxuriance, made permanent with perennial plants, in an odd corner of Stockholm. In England we need more of such simple public gardening, and less municipal tidiness and elaboration



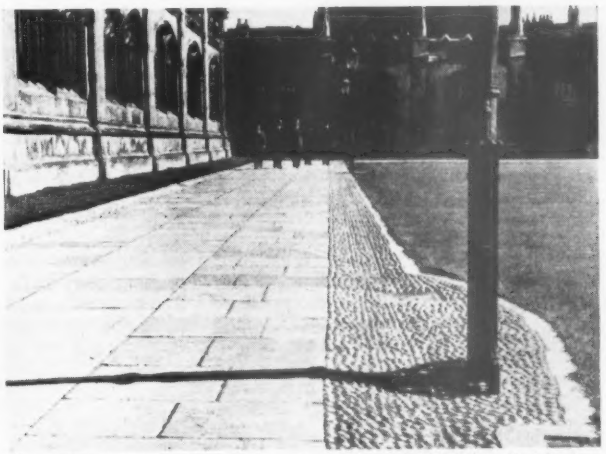
At the Festival of Britain South Bank Exhibition we unbuttoned ourselves to let the pedestrian free for a while, and to let little gardens like this occur naturally among the crowds.



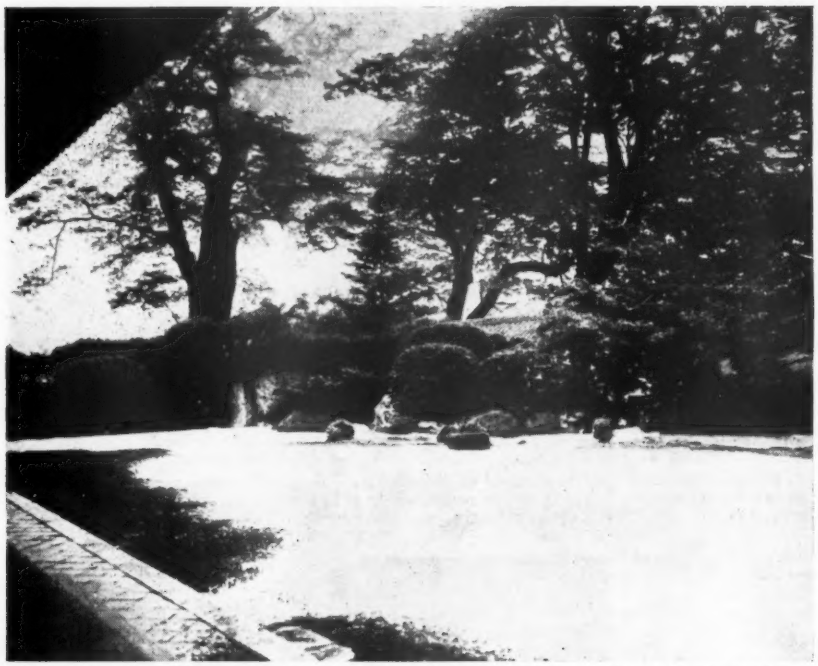
In Sweden, here and there, the landscape has ceased to be merely bits and pieces, but forms a continuous civilised semi-natural designed background to the whole neighbourhood *Photo: Institute of Landscape Architects*

A masterpiece of restrained design by Paul Hedqvist; a few trees and an enclosing wall turn a few square yards of grass into an outdoor room. How valuable in Northern climates are screen walls.

An old barn preserved as an estate office in a housing estate by M.O.W. at Abingdon. Such old buildings, or even old walls and pavings, help greatly to prevent the *genius loci* from taking flight



How difficult it is to do paving well, and how delightful to find it done so beautifully as this at King's College, Cambridge, by Sir William Holford and Myles Wright *Photo: Ramsay and Muspratt, Cambridge*



The garden of the Abbots Chamber, the Daitokuji Temple, Tokyo. A sheet of white sand symbolises water, with shores and islands of moss and evergreen plants. The great rocks symbolise a waterfall.

*From 'Gardens of Japan,' published by Zauho Press, Tokyo*

*General comment on the illustrations. Of all the great gardens of history, perhaps those of Spain and Japan have most to teach us, who need a style appropriate to the modern urban scene. The gardens of Spain are of Moorish descent; they are fundamentally parts of the buildings which surround them and shelter them; private paradises of water, stone and greenery in a rather arid land. The Japanese gardens are of Chinese descent; the supreme examples of collaboration with nature, they have been preserved by centuries of careful traditional gardening.*

growing in cracks in the rocks. You cannot put the plant there. It must come by itself and be left to grow there.

Although a great many of us may feel that this is the most pleasing type of gardening, it is not what pleases the general public—and the vast majority of our clients—who are asking all the time for a mass of colour.

**Mr. Gontran Goulden** [*A*]: One thing Mr. Shepheard mentioned needs mentioning again, namely those frightful little gardens —he called them sentimental, which was much too polite a term for them—which have sprung up all over London with advertisement hoardings and seem to be so far from gardens as to be quite laughable.

It was rather a criticism, I thought, of our public gardening generally that not one of Mr. Shepheard's slides was of a public garden. Our normal park gardening, with the exception of very specialist places, such as Wisley, is so bad now and shows no sign of improvement that we must rank as one of the lowliest of official gardeners in the civilised world. The Swedish gardens, I thought, were excellent.

As for the formalised gardens of our parks, no one can criticise them for their lack of being tended, but when we did make a jump at the South Bank into these rather wilder gardens, I think we all hoped that this would be reflected in the official gardening of the future. It is, perhaps, too early to say whether anything will be done, but one does wonder who is going to do it.

**Mr. Bullivant** [*A*]: I was a little discouraged to hear Mr. Shepheard say that he thought professional landscape design and architecture were really two separate entities and that, with the possible exception of himself, it was difficult for one person to combine the two!

It seems to me that architects often have opportunities of using plants in a simple way in the ground spaces around buildings, schools and playing fields, and spaces on housing estates. I should like to hear Mr. Shepheard say again whether or not he thinks that an architect should have a basic understanding of plants and how to use them, their different types, and, possibly, a grasp of simple effects.

**Mr. R. W. Paine** [*A*]: I do not think it is quite true that the public is crying out loud for masses of colour or for masses of geraniums. All these things are being imposed upon us by people, amongst whom are borough engineers and civic gardeners, whose only ideas run along those lines.

To take up a point made by Mr. Bullivant, I do not think it is any too easy for architects in the ordinary way to do much gardening, because once again, as soon as the school is built, or the housing estate is there, along come the same people to do their damnable work all over again. Possibly some of the younger people now training may have to devote themselves to the practical side of being, not landscape architects, but civic gardeners or their equivalent, if any good is to be done at all.

**Miss Caro** [*A*]: Although England is, perhaps, the worst country for modern gardens in towns, Spain has a most wonderful tradition of gardening from the 15th and 16th centuries, and yet when you get to Madrid and see its gardens you are surprised to see anything of that nature. I think that that is the universal mood of today. Perhaps it is that Sweden is different rather than that it is just an English fault.

**Mr. Shepheard:** Of course, the proposer and the seconder were kind to me, much kinder than they ever need have been. It is very strange to hear myself called a universal man—I must remember that—but I am tremendously grateful to Mr. Jellicoe for re-phrasing something which I had put in a much less understandable way, and also for giving me the opportunity of correcting an impression, which I certainly made, that I dislike the Italian gardens. I have never seen them, and one cannot really dislike things that one has never seen. But what I would feel if I did see them, judging from pictures at any rate, is that that Renaissance order, which was all very well in the springtime of the Renaissance in Italy, was all quite different when it got into the clutches of the kings of Europe—for example, Louis XIV, and the great palaces of Vienna, Versailles, and so on.

All over Europe one finds these travesties of what should be done to the landscape, these gross impositions, all of which are rooted in this fundamentally Italian tradition. I quite agree that it is not fair to blame the Italians for all that, but when I use the word 'Renaissance' I mean really this tremendous load of inorganic architecture which derives itself originally from the Italian Renaissance.

I will not go into Le Corbusier; we must leave him for another day. It would take too long now.

I was interested in Dr. Fox's remarks about Nature's colour. I always stick my neck out about this business of colour in Nature. I really think that the gorse common, brilliant though it is, is not a very bright colour. It is about the colour, if you half shut your eyes and stand a hundred yards away, of one of the brighter forms of khaki. It is yellow and green, and the buff of the gorse flower, all mixed up; a strong colour, but not the kind of colour you get from a slab of potted geraniums planted out in a town square. It is not that kind of burning hole in the landscape. I have seen some very colourful displays of, for example, heather and gorse together, but purple again is a very subdued and morose colour. Even with the Alpine meadows, which I have seen in June, although you do get a meadow, perhaps, full of the little red primula, or trollius, or

A *chiri-ana* or dust-hole in a tea garden at Tokyo, a utilitarian object decorated with a natural-seeming growth of plants which is in fact contrived with great care

*From 'Gardens of Japan'*

A garden well and water basin in another Tokyo tea garden: a few stones and two plants only; but the moss on the water basin has taken years of patient cultivation

*From 'Gardens of Japan'*

A corner of a very small garden which I helped my father to make when I was a boy. One of the most rewarding feats of gardening is to create an effect of luxuriance—of incipient wilderness even—and make it permanent

*From 'Gardens of Japan'*

campanula, the grass and all the herbage subdues the colour so that, if you had to paint it, you would use a fairly subdued palette.

What I am thinking of is the canna that you used to see in the public streets of Germany, or slabs of blue lobelia, or the beds full of the great blue hydrangea. There is a colour which is a terror for not mixing with the landscape! I discovered to my horror the other day, seeing it at a distance in a green countryside, that the blue hydrangea looks exactly like a brand-new piece of galvanised corrugated iron.

Mr. Wren raised the fascinating question of English names. One can only say that it is no good. People have tried it over and over again. Robinson was the greatest man to make a fool of himself over this in his book on flower gardens. He tried to invent names, and we got things like 'rock foil' for saxifraga. The reason why botanists use Latin names is of course not for fun, but to make it easier for them. If you want to keep in your head several thousand plant names, the only way is to divide the thing up by getting a key: a *specific* name of the plant, a *generic* name for the family to which it belongs and other names of the various orders, and so on. The object of this system is that anybody who is reasonably familiar with a plant can look at it and say that it is in a certain family. He can thus pick out the first of the two names, and then go to the dictionary and find out exactly what it is by comparison. It is fundamentally a question of classification, and the English names are quite useless. If a plant has one English name, it is just as likely to have six. If it has an English name which is fairly well known, it will have a name in French, Dutch, German, and every other language; there is no way of keeping track of it except by having one internationally recognised name.

Sir Patrick mentioned Japanese gardens; in fairness to the greatest nation in the world one should certainly always remember that Japanese gardens and Heaven knows what else originally came from China. The reason why it is easier to find pictures of Japanese gardens is, perhaps, because the incredible, grim, religious and social repression in Japan preserved those gardens. The fantastic conservatism of mind of, for example, the Buddhist monks, preserves a garden which is entirely made of moss and stones for 700 years. That kind of thing does not happen in very many countries, and the reason why people have forgotten Chinese gardens is that so many of them have disappeared.

Miss Colvin made the essential point, which I entirely forgot to make, that this kind of landscape needs a new kind of gardener. We have got to face that right away, and with our anxiety to train landscape architects we must train gardeners who know what they are doing.

This absurd tradition of public gardens which we have is not at all permanent. It is just that extremely badly trained people are doing it at the moment. I agree with Mr. Paine; I do not think the public like it better than any other kind. It is kept going because of inertia on the part of the garden administrators and the people who look after the parks and gardens; but I think it could be changed. After all, you do get this new kind of gardening in other places. The wild garden at Wisley is incredibly beautiful. There are several bits of it so good that one cannot see how they are done. Of course they have one of the greatest gardeners in the country, but a man like Mr. Hanger could easily start a school of gardening if he wanted to.

What *can* one say about those horrible little street gardens in London? Something must be done about them. It is all very well for these wretched commercial advertising firms to put up bits and pieces in Piccadilly and Knightsbridge and other places, but what is a thousand times more unforgivable is for a body like the Westminster City Council to do what it has done to Golden Square. Even more unspeakable is the fear that the same thing will be done, any minute now, to Soho Square.

Any people who want to do something really useful ought all to write letters at once to the Westminster City Council saying what they think about Golden Square. The trouble is that they like it, and they think we like it, unless we tell them. So write letters—polite ones, because borough engineers get hundreds of impolite letters and are rightly impervious to them.

The last note I have is that of Mr. Bullivant's remark that I thought nobody except me could combine the two professions. Of course I do not think that, and I do not think I even said it. But I do feel in my own case that there is a certain strain in trying to do it. I think I would stick to my guns about this. The two professions are different.

Mr. Bullivant asked whether architects should have a basic understanding of simple effects. I think they should, but I do think that in ordinary circumstances it is difficult for them to do so, if they are going to be busy enough at their own job. I believe in these divisions of labour, and I do not see why one should not have specialists providing they are brought up with the modern architects and see what they are driving at. The key is in Mr. Bullivant's phrase, 'the understanding of simple effects'. There is nothing more difficult than to have an understanding of how to produce a simple effect.

In this connection, I should say that the landscape architect is often called in much too late, when a whole lot of the decisions have already been taken and done. An architect will show you a tree and say, 'Look! We have preserved its roots.' And there is a tree standing up on a 4-ft. platform about 10 ft. in diameter. One has to explain to him that it is too late and that all the roots have gone except a few large prongs which anchor it to the ground, which makes him horrified. He ought to know at least enough not to let the contractor do that sort of thing to a tree.

But apart from things just like that, I do not think that the architect could have that understanding unless he develops into and trains himself as a landscape architect—and that is quite a different thing. I should very much like to see a joint education of the landscape architect and the architect for at least part of their course, just as I would like to see a joint education of architect and engineer in their parts of the work.

I cannot close without saying 'Thank you for listening to me' or without thanking also those people who lent me slides, especially the I.L.A., who lent those on Sweden, and Mr. Gordon Michell, who lent me some pictures of Spain.

# R.I.B.A. Prizes and Studentships Address to Students by the President

Mr. Howard Robertson, M.C., A.R.A., S.A.D.G.

Read at a General Meeting of the Royal Institute of British Architects on Tuesday 3 February 1953.

I THINK it is not unfitting that my first address to students should be prefaced by some remarks about the relationship between students and our Institute.

The word 'student' only connotes a stage in an architect's career. The student becomes an architect; the genuine architect remains a student all his life. There is a line to be crossed at examination time; but there is no separation of interests between any of us. What the Institute tries to do in order to benefit its fully qualified members is automatically of benefit to students who are going to qualify. What it does for students is going to be valuable to all architects in practice. We are all the same race of people, merely arriving at different ages and stages. The work of the Practice Committee, the Salaried and Official Architects' Committee, the Public Relations Committee, to mention but three, is directed to ends which in the broad sense are of benefit to students, as aiming to improve the status and prospects of the profession and of the practice into which they are about to enter.

The Board of Architectural Education and its various committees provide the outstanding example of continuous and mainly voluntary service in the Institute devoted essentially to educational matters. The Visiting Board, the Juries, the special committee which sits to review the whole position of education, occupy the time of many busy people whose time is often precious. The extent to which public-spirited architects give their working hours gladly and freely to Institute purposes is probably not fully realised, and the proportion of that particular contribution of voluntary service which is devoted to the educational side requires to be underlined. I mentioned these facts because many students in days to come will, no doubt, be making their personal contribution in the same way. And they must not be disappointed if instead of bouquets they are the recipients of criticism which sometimes comes in its fullest force from those who have made the least personal effort to help their Institute. Architects will ultimately, of course, get the Institute they deserve. I think we can today be reasonably proud of ours; and membership of it is a hallmark. It will be due to the apathy of the many, rather than the fault of the few, if we fail to maintain our standards.

And now I come to a difficult part of my address. I suppose I am here to attempt to give some useful advice, or at least the benefit of my experience. I realise that experience is best bought at first hand; but people like myself who have had school training, some office experience, and then a venture into practice, are hopefully tempted to help others to avoid the mistakes they have made themselves.

It is difficult to know at the outset of training where one's talents and abilities may lie. They are apt to develop or be found wanting only slowly, as one matures. Perhaps the best attitude at first is that of the Kon-Tiki navigators—to go along with the current and not force oneself into planning a course too rigidly in advance. For instance, some architects are poor assistants but prove to be excellent directors of their own practices, because they have, let us say, a flair for making contacts or for organising and delegating. Others have the sense of organisation but cannot manage to pick up work. Others still are marvellous within an organisation but feel that they will not stand too well alone. It is a matter of personal endowment of temperament, environment, of relationships, and of alertness or good luck in following the turn of fortune's wheel.

But whatever the future may bring, there are certain conditions to be observed, not as guarantees of success, but as contributing thereto.

Apart from an enthusiasm for architecture, which I hopefully assume in every student present, there is the matter of technical equipment, and this is a complicated subject bound up with educational methods. I cannot speak of these this evening, but only of the end in view.

The first and hardest thing to remember is that in this professional world, however deserving one may feel oneself to be, nothing is owed to any of us. Nothing is ours by right. Therefore, from the outset, one has to market something; in this case, first one's talents, and finally one's services. If everyone is going to earn a salary, and eventually fees, it is necessary to provide a service in exchange. And even a student entering an office for the first time is expected to bring with him a certain basic technical and manual skill, and be able to deal with simple problems. To draw firmly, title legibly, dimension clearly, so that sharp prints can be taken, is a great asset in an office. To be able to produce a simple, agreeable, and realistic perspective sketch that a client will understand is a further accomplishment which is valuable but rare. Unfortunately, drawings in the manner of Osbert Lancaster, Le Corbusier, Mies van der Rohe, or even Gordon Cullen, are of little avail except when done by these masters themselves. Please aim at something more prosaic to begin with. The architect's office has to communicate with clients or committees often lacking in artistic awareness, and must use simple channels. And a perspective—realistic, crisp and well composed—is one of them.

A second desideratum is a grounding in simple construction. Dampcourses, flashings, windows, door details, gullies and gutters unfortunately still exist as building features. Knowledge of these need not preclude a nice taste in space frames; but basic knowledge of the simple essentials is indispensable.

And here I must confess, and warn all concerned, that architects' work today is about 90 per cent factual, and only 10 per cent dreaming and designing. Designs happily seem at times to take shape quite suddenly in one's mind, like Hugh Walpole's novels did in his, and can then be sketched out quite quickly. But the routine of administering contracts, of correspondence, of dealing with troubles, and last but not least, of attending to endless factual working drawings and tiresome schedules, quite honestly occupies most of the office time. Once the sketch scheme is accepted, building projects become problems of contracts, prices, foundations, structure and services, services, services. And all architects' offices are full of youthful and elderly men hoping, hoping, that someone else will attend to just those things. The elderly men in question are often the partners, people like myself, who know that the chores are inescapable. The youthful ones are, of course, sanguine people like yourselves.

Personally, I would like to see consideration given in school courses to the possibility of a rather more factual study of the business side of architectural practice; awareness of it is becoming quite vital. Something might have to be crowded out to achieve it. Thoughts on what could be sacrificed are, however, out of place tonight.

But I must allude to a criticism often levelled against architects, that they pay insufficient attention to costs. Actually very few today are guilty of that. A very hard economy holds the architect's sensitive nose right down amongst the obnoxious prices, with the quantity surveyor at hand with his smelling salts. Our trouble has been to produce anything architecturally satisfactory while prices rise against us; and the balance is struck by whittling down either size, quality of structure, or materials, and

finish. You cannot have both when people are trying to beat an impossible budget.

No one expects students to be cost-minded by nature, but it is salutary for schools to teach how to cube, and to call attention to price ranges per foot of current types of building; also to point out that a description on a drawing reading 'partitions to be made of some plastic material' may possibly contain the germ of a hideous disappointment when prices are considered. It is interesting for the student himself to know a little about costs, and to observe and note what is actually being achieved in current building. The best way, of course, is to pay the bill for some minor construction of one's own, or better still, the family's.

I now come to the more interesting side, the one that probably appeals most to all of us: namely, architectural design.

I suppose one of the trustiest platitudes for the lecturer on design is the one about having to put something into oneself before expecting to bring much out. The question arises, what should one try to absorb in order later to be oneself productive?

The temptation in my day, and it is still there, was to form one's design vocabulary on the recent work of other architects; to be briskly alert for the latest mannerisms and stylish turns of architectural expression; to pick up all the tricks, unfortunately without realising that these are probably the mannerisms of architects whose deeper contribution is based on a study and development of fundamentals which they have laboriously explored and developed.

Living men who have looked below the surface and are thoroughly familiar with tradition, although they may not use its vocabulary, include famous and familiar figures such as Auguste Perret, Frank Lloyd Wright, Walter Gropius, the late Gunnar Asplund, Le Corbusier, Mies van der Rohe, Richard Neutra, and many more. Some of them have imitators who may fondly hope to start where these men leave off. But they may forget that these leaders developed their own personal expression the hard way, by endless study and experiment, in some cases accompanied by frustration and disappointment. Their work may be in one sense laboratory research, in that it does not always produce satisfactory or conclusive results for general application. But it brings to the surface very stimulating suggestions and sometimes idioms of great expressiveness and character which are eagerly seized upon and too rapidly become tricks of the trade.

Groups and cliques of disciples form, often with a healthy intolerance of each other. Groups are not to be despised. They have always existed in the past, and render great service as spearheads for progress. The danger arises when they have served their purpose but continue on as power groups for pressurising opinion or for the advancement of individuals.

In the immediate past an attempt was made to establish something in the nature of an international 'style'. It is a pity the word 'style' was used, for 'trend' might have expressed a more defensible intention. It is difficult to endorse the idea of a truly international 'style', since climate, ways of life, natural environment, and other factors differ in most countries, just as the people of those countries tend to differ. Surely the way for a designer is not to be too self-conscious, but to develop his own personality, and follow his own inner convictions, which will be formed according to his own environment, his way of life, his study, his experience. The student does right to study and follow such movements to analyse their root causes; but he should retain his own independence and judgment.

This brings me to the reflection that most of us are apt to design with an eye too firmly fixed on our brother architects and publicity in such journals as quite legitimately follow their own policy of stressing more particularly the advance-guard movements. Many of us are frightened of being thought old-fashioned, or of having an effete and outworn label attached by the knowing ones to our own personal type of expression. Magazine critics do undoubtedly help to foster this fear. An American journal will write a caption that such and such a design is 'Perret-Beaux Arts'. This is, of course, at first glance a terrible condemnation, and the architect culprit is expected to shrivel up amid the jubilant execration of *avant-garde* readers. Another article will come to the unhesitating conclusion that the all-glass house by so and so (only recently acclaimed by the way) is now quite demoded, and in fact represents the end of an epoch. The real thing is, of course, the more recent all-glass house by such and such, which vibrates with the tension of the new age. And so it goes on. It would not matter if this sort of writing did not lead architects away from what is terribly important, namely, designing primarily to do what they are paid for, that is to serve their clients by giving them the pleasant, usable, durable, practical, and good-looking buildings which they have the right to expect for even a meagre capital investment.

We architects could quite easily design ourselves out of a commission, just as the builder could price himself out of a job. It is salutary that we should realise this. We should not spend too much time on designing for a Mediterranean climate, or on providing such things as all-glass fronts and interlocking space just for the fun of it in cases where practical demands undeniably suggest more solid walling and considerable privacy. Our architectural treatments should, in fact, be soundly and factually based.

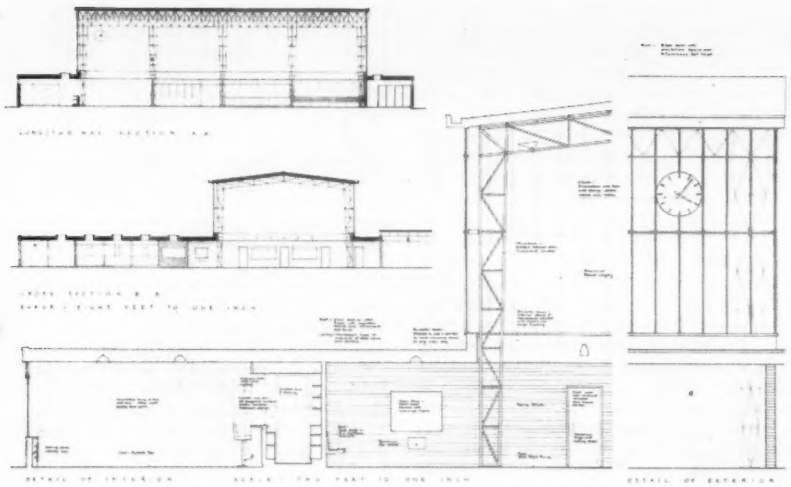
This is not to say that we should sink back into a slothful imitation of the past. Some people may be discouraged by the difficulty of producing an architecture fine and pleasing, creative and in the spirit of the age, and yet legitimately individual. But it is not impossible. Frank Lloyd Wright's work is quite unmistakable, not totally original, of course, but very nearly so. In another sphere Debussy's music was like that. James Thurber's drawings are another instance of originality; it is hard to think of anyone who drew just like that before. The architect who really feels he has the spark need not be afraid. His genius will come out all right, given hard work and a modicum of opportunity. But great individual contributions are seldom made by architects who think more of being stylish than of developing style.

All this may sound rather patronising and smug. But we may as well recognise that our job is an intensely difficult one, and the path of aesthetic integrity beset with temptations. Ours is an architectural Pilgrim's Progress.

An interesting sideline in the matter of architectural style, as affected by the so-called 'machine age', is the change in the appearance of machines. In the early days there was a reflection in the design field of the sort of machinery that the Wright Brothers contrived for their biplane. Our chairs and tables and Mondrian's painting all felt it, and it still persists. But now, so gradual as to be scarcely noticed by most people, we see the merging of the rigid mechanical form with the biological. The new Handley-Page H.P. 80 looks more like a great bird or fish. Our locomotives and racing cars are developing an almost reptilian form. The painters and sculptors, as always, have sensed this. Look, just to take two examples, at Graham Sutherland, and some recent work of Reg Butler.

Developments are nowadays so rapid that it must be very hard for assessors to judge a competition with an open mind, especially one for students. I suppose we must recognise that to win an award in a competition it has always been necessary either to have a good deal of knack, or better still to exhibit some quality that first intrigues and then captivates the jury. That brilliant student, Whitelaw, who will be remembered by some of us, achieved this in a railway station design which secured him the Soane. It was presented in rather unfinished drawings, but the jury sensed the true architectural spirit emerging from the design.

Competitions may be heart-breaking; but they are a superb training-ground for us all. They reveal where one stands oneself, not to forget, of course, the human failings of all assessors except the one who makes that rare personal award. Today it cannot truly be held that assessors are stylistically prejudiced. They do try to recognise what is appropriate and what is good of its kind. Any student who is disappointed with the results should not be at all discouraged. The careers of all artists have been sprinkled with disappointment, and recognition often comes very late indeed. But when we embrace an artistic career we must be prepared to accept its vicissitudes. We are assured of being in excellent company.



The R.I.B.A. Intermediate Design Prize. Detail sheet of the prize-winning design by Mr. Maurice Edward Rutledge [*Student*], of the School of Architecture, the Polytechnic, Regent Street. The subject was a railway terminal in a small provincial town. The site plan was on a fourth sheet

# Criticism of Work submitted for Prizes and Studentships, 1953

## By Howard V. Lobb, C.B.E., F.R.I.B.A.

AT THE OUTSET of my remarks tonight I must mention that I am the mouthpiece of the various juries who have judged the prizes and studentships, and record my appreciation of the way in which these juries have tackled their task. All competitors can rightly feel that their work has been studied with care, and my first advice to intending entrants in future years is not to underrate the jury's intelligence. I have seen them at work and they are certainly well worth working for.

A glance through the R.I.B.A. Kalendar is surely proof of the encouragement to architectural talent and scholarship which the prizes and studentships offer, and I feel it is particularly disappointing that a larger number of entries is not received for many of the awards. All of them have considerable prestige value and many provide opportunities for travel.

Some of you perhaps look through the R.I.B.A. Kalendar and see the names of the younger generation of architects whom you respect, such as Robert Matthew, Basil Spence and Frank Booth. You will find that they were placed in some of these prizes and studentships, and their experience of entry and success in those competitions has served them in very good stead.

I will refer at some length to the subjects for the two design prizes this year—the Intermediate Design Prize and the Victory Scholarship. The juries decided this year that both these subjects should be particularly realistic ones, and in the case of the Victory Scholarship an actual site was chosen at Dover for a hotel for car ferry passengers to the Continent.

In the Intermediate Design Prize a railway terminal in a small provincial town was chosen and here again detailed information was given of the town itself which is described as being pre-eminently Georgian in character with buildings in mellowed brick and red pantile roofs dominated by a fine 14th-century parish church. In both cases the site areas were adequate and free from potential difficulties of levels, access and the like.

Taking into account the realistic way in which these programmes were drawn up and the fact that the competitors were given a preliminary warning of the subject before they came to their esquisse, it is particularly disappointing that the standard of the designs submitted was not high. Four hundred competitors took part, 10 being allowed to proceed.

I should like to throw out a hint here, particularly to the schools. Is it right to have 400 competitors for the first stage, or should we sort them out beforehand and get the best of the students at this intermediate stage of their training, thus having a smaller number of entrants but more qualified entrants? Quite honestly, I suppose about 20 per cent of the competitors had not really got a clue on this not very difficult subject.

In the railway station the first problem was obviously one of circulation and orderliness. Thousands of pounds must be spent in this country every year on the problem of road safety, and one always likes to feel that candidates for the architectural profession are aware of many of the problems involved. Many of the esquisse schemes, however, made no attempt to segregate the different sections of traffic, and in order to get to the booking office to buy a ticket one had to run the gauntlet of car park, taxi rank, buses and as a last resort risk getting run over by the trucks which are likely to circulate between the parcels office and the platforms.

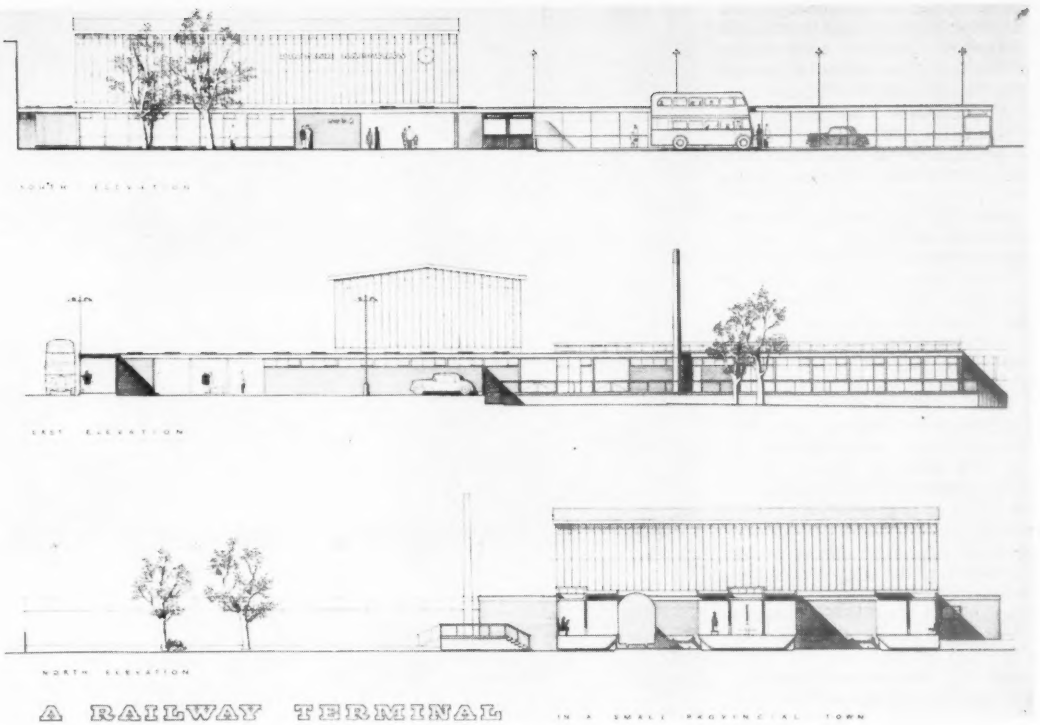
The site was not in any way a restricted one—in fact one competitor reserved about half of the area for a railway sports club—and there was certainly no reason to place the refreshment room on the first floor—although the jury were sufficiently impressed by one scheme which had otherwise solved the problem and allowed this competitor to proceed to the second stage. I would, however, particularly stress the necessity for competitors in these competitions to try and visualise themselves entering a railway station with other people, perhaps with only a few minutes to spare, and go through all the actions which are necessary before boarding the train. If 50 per cent of the competitors at the esquisse stage had done just this, the cross lines of circulation and other difficulties should have been avoided.

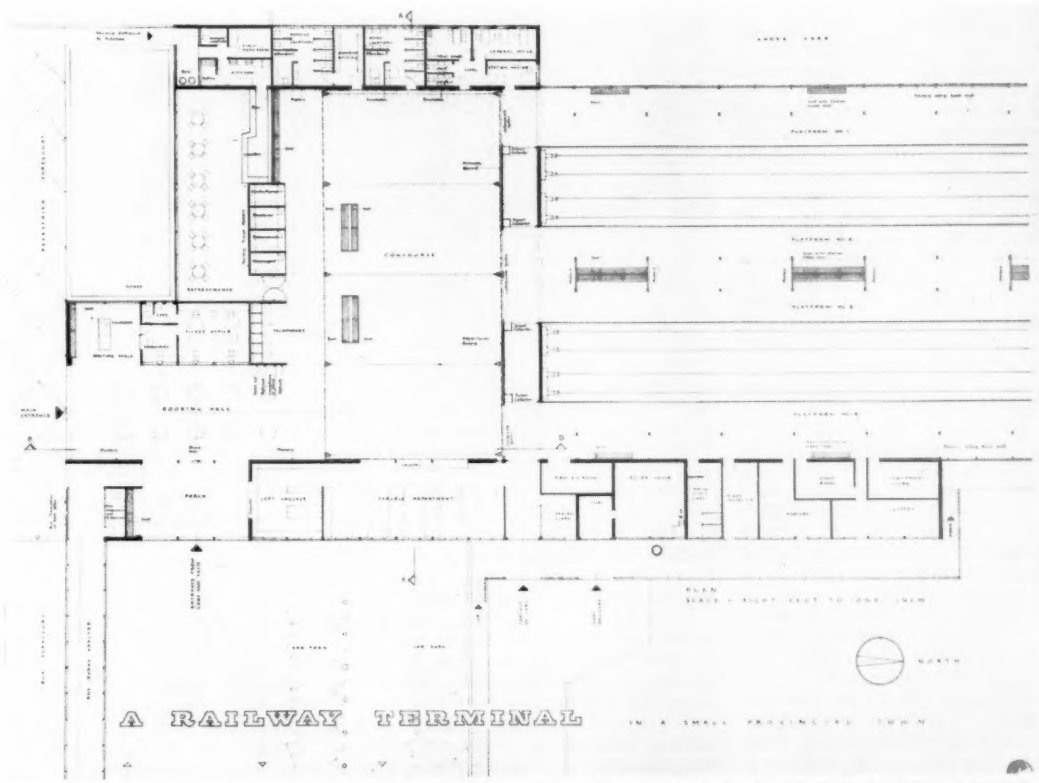
I would also like to make a reference to the general austerity of the designs in both subjects. As I mentioned earlier, the railway station is to be attached to a rather pleasant provincial town and I do not feel that a station consisting of extruded aluminium strips faced with vitreous enamelled panels shows the scholarship which the site and the subject warrants. I think it is of interest to record that there is no indication that the size of either of these subjects was too large to be tackled in the period allowed for the esquisse—in fact one competitor, who could certainly usefully have spent more time on thinking out circulation problems, managed to draw some quarter full size details of the lettering to be used on the stationmaster's office and the refreshment room.

The winner of the Intermediate Design Prize, Mr. Maurice Edward Rutledge [*Student*], has a scheme which is good in scale and character, but the traffic problem is not fully solved, although the entrances are well handled. Some of the detailed planning is good—for example, the stationmaster's suite, but we had some doubts as to whether the concourse walls should be fully glazed.

The total number of entries for the Victory Scholarship was 156, generally all fourth-, fifth-year students or Associates; and apart from the very obvious criticisms of the elevations of a number of the hotels—it is, after all, not a very large building—the most serious failings of the competitors were that aspect, prospect and access from the adjoining roads were completely ignored.

In a number of schemes the dining-rooms faced north and none of the public rooms overlooked the sea! Problems of circulation worried many competitors and it must be remembered that a hotel lounge entered




The R.I.B.A. Intermediate Design Prize. Plan and elevations of the prize-winning design by Mr. Maurice Edward Rutledge [*Student*], of the School of Architecture, the Polytechnic, Regent Street

at one end with the dining-room at the other must inevitably turn itself into a wide corridor. Other requirements such as the necessity for alternative means of escape to the upper floors and insufficient consideration to the exposed position of the site reduced the number of competitors allowed to proceed to the final stage to a total of seven, of which two dropped by the wayside.

The jury decided that none of the five schemes submitted warranted the award, but certificates of honourable mention have been awarded to the schemes submitted by Mr. Frank Hilton Brown [*Student*] and Mr. Ronald William Brunskill [*A*].

I would now like to refer briefly to the Owen Jones Studentship which has been awarded to Mr. John Arthur Wells-Thorpe [*Student*]. This candidate has obviously studied Owen Jones's Grammar and has also contributed some original thought on the subject. The sketches show careful observation and presentation and his design uses natural materials in preference to mere paint. I would, however, warn competitors to be more careful in the notes on their sketches, particularly if Mr. Goodhart-Rendel is a member of the jury! This candidate's supporting portfolio includes a twelve-hour sketch scheme which is very fresh in feeling and colour.

I said earlier that we had only three entries for this, and I would just remind you that the increasing use of colour in schools and in our buildings generally should make this a rather attractive scholarship. It is worth a considerable amount of money, and I should like to throw out a hint to students generally that it is well worth while to compete for it.

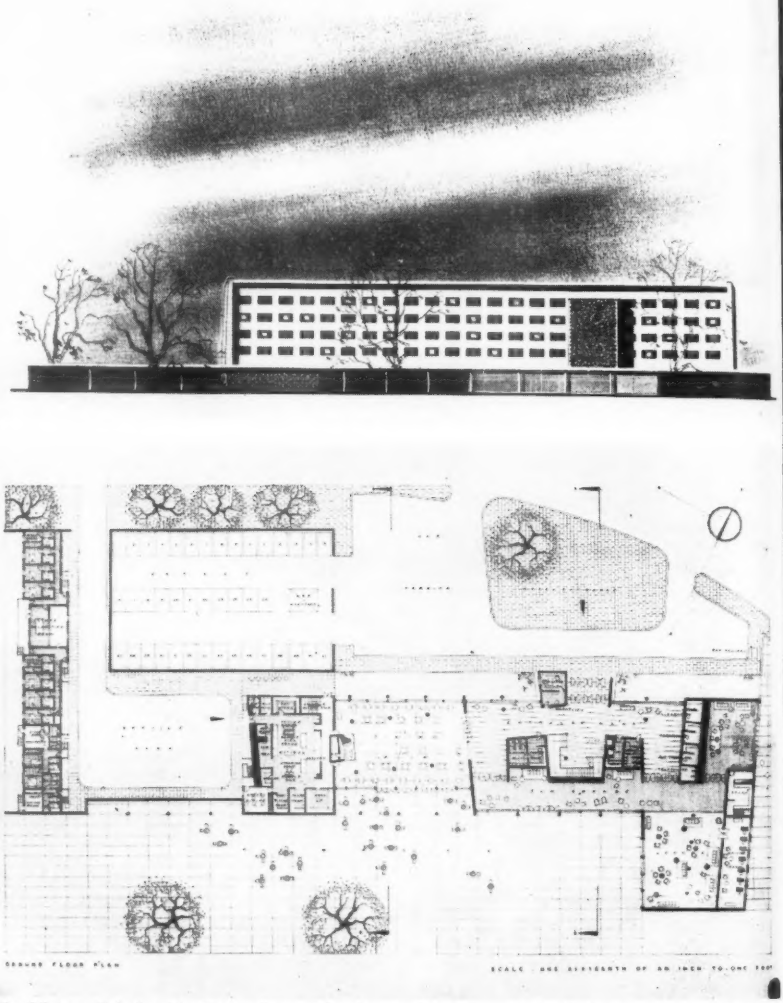
I would mention the scheme submitted by Peter Edward Sharp [*A*] from Australia —a very good effort which did not, however, come up to the winner's standard.

Next let us consider the Hunt Bursary. Three schemes were submitted, the award going to Mr. Edward Hyam Jamilly [*A*]. This Associate is the most mature and experienced candidate and he is likely to benefit most from the tour. His programme is too mixed and extensive. France and Germany, low cost housing and reconstruction—all in three weeks!

It is hoped that Mr. E. Lloyd Hughes [*A*] will apply again since he has prepared an extremely interesting analysis of good and bad examples of London housing and his programme is reasonable.

The Alfred Bossom Research Fellowship has been awarded to Mr. Edward D. Mills [*F*], who proposed research on a most necessary subject of wide interest which has been little studied—'The weathering of modern buildings.' He plans to go to America to examine in detail a number of the earlier modern buildings and to collect details of the weathering, and I am sure we all wish him success in this task.

The runners-up were J. C. Stillman [*A*] and J. C. Eastwick-Field [*A*], who propose to make a study of modern joinery techniques and write a book on the subject, a very useful task which certainly needs to be done and they would do it well.



The Victory Scholarship. Two of the eight sheets of drawings of the design by Mr. Frank Hilton Brown [*Student*], of the School of Architecture, the Polytechnic, Regent Street, which received a certificate of Honourable Mention. The subject was a hotel for car ferry passengers at Dover

For the Banister Fletcher Silver Medal Essay Prize, the winner—Mr. Gerald Thomas West [*Student*]—writes an essay on the farm buildings of south-east Surrey. This is well written, to the point and shows sound field work with good sketches.

Mr. John Brian Waller has been awarded a certificate of honourable mention. He also has good field work, is thoughtful, but is slightly disorganised with a few typing errors not corrected.

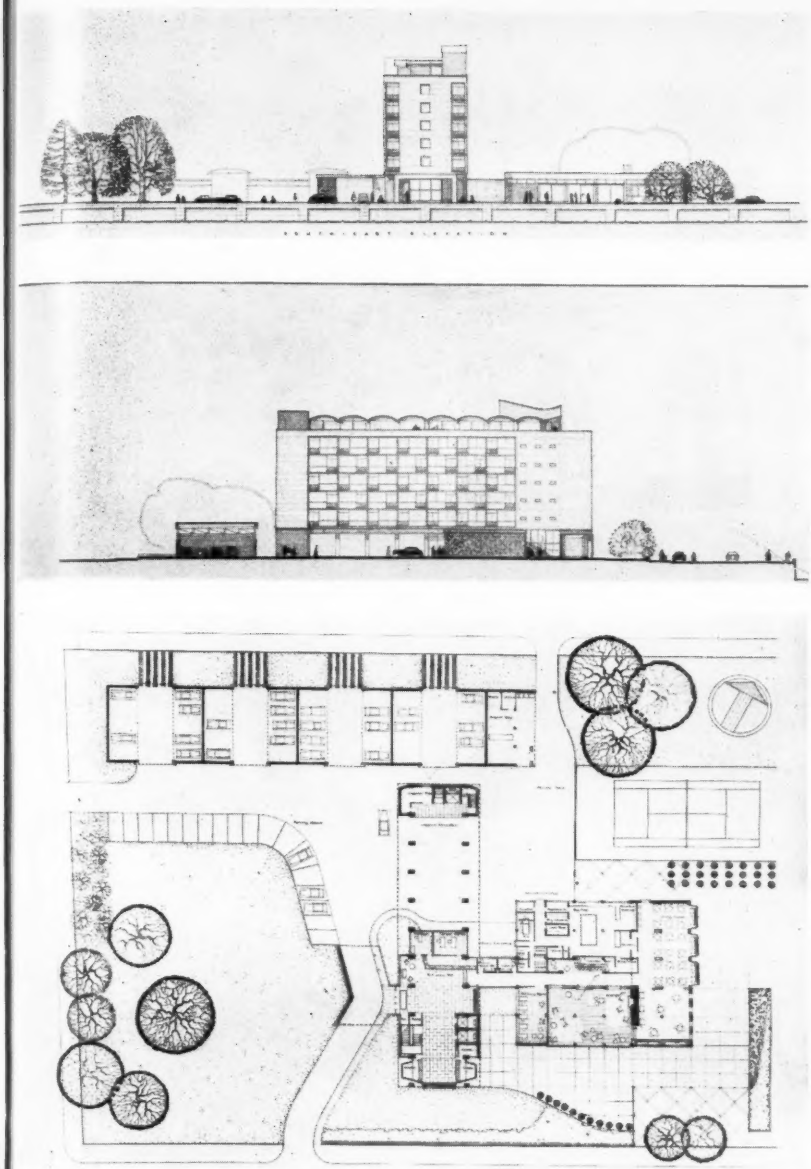
In the main the other competitors have varying degrees of presentation, many being a mere collection of notes rather than a readable essay.

Out of the total of six entries for the R.I.B.A. Silver Medal for an Essay, two could be classed as essays and four as theses.

However scholarly and attractively presented the thesis, as was *Leporello's* on the work of Rickman and Hutchinson, or on however interesting a subject, as *Mallam's* short history of Nigeria, these were ineligible because of their literary form.

*Saga* submitted an interesting essay entitled 'Between Yesterday and Tomorrow', a study of the architect's position in society during the last hundred years, but his research, mainly in the back numbers of THE BUILDER and his comments thereon were not up to standard.

The most readable essay was that of



The Victory Scholarship. Two of the six sheets of drawings of the design by Mr. Ronald William Brunskill, B.A.Arch. (Manchester) [*A*], of the Manchester University School of Architecture, which received a Certificate of Honourable Mention. There were 156 entries for the scholarship

Mr. John Brandon-Jones [*A*] on *Religion, Morality and Art, based on the Buildings and Philosophy of C. F. A. Voysey*. Literary style suffered by the inclusion of so many quotations from Voysey's writings and in consequence the jury decided to award only a certificate of honourable mention to this candidate.

For the Arthur Cates Prize, the subject this year takes the form of a critical essay for a study of the contemporary development of domes. Again I am sorry to record that faults in English composition, choice of expression and spelling occurred in the work submitted. The winner, Mr. Gordon Graham [*A*], has devoted much time to research, although he makes little reference to historical examples or influence and in an overall review possibly gives too much space to the Dome of Discovery. The presentation was of a very high order.

The other two entrants, Mr. A. M. Brown and Mr. K. Lindsay, did not come up to the winner's standard, being scanty in facts with the conclusions not fully developed.

In the competition for the R.I.B.A. Silver Medal for measured drawings, the jury are delighted that there are eleven entries for the competition this year—all of a high standard. The winner, Mr. Tadeusz Lesisz, has measured complete St. Stephen's, Walbrook, and by so doing has superseded Clayton's records of 1840 and added to them, since the roof construction is now shown after exposure due to war damage. The presentation is straightforward and in this case the rather risky procedure of rendering a measured drawing comes off.

Generally for this subject I think juries would prefer to see a completely measured building rather than a collection of smaller subjects.

The Neale Bursary is available to a candidate submitting the best selection of drawings and sketches or other evidence of research in the field of historical architecture. It has been awarded to Mr. R. T. Clough [*A*], who proposes to continue his studies of smelting mills in Yorkshire. The runner-up, Mr. H. G. Arnold [*A*], was a very close second, submitting some charming water-colour drawings. Mr. D. W. Insall [*A*] proposed a good programme, but had insufficient supporting evidence.

The R.I.B.A. Prizes for Public and Secondary Schools are available to boys and girls for the encouragement of interest in architecture. The prize is divided into two, the illustrated essay prize being divided between David R. Bennetts and Geoffrey Holland, both of the Manchester Grammar School.

The prize for the drawings has been divided between Ian McNab of Derby Grammar School and J. G. Rushman of Northampton Grammar School for their drawings of Wollaton Hall, Notts., and Hardwick Church, Northampton.

The Archibald Dawnay Scholarships are intended to foster study of all forms of construction, and portfolios containing working drawings of selected students of recognised schools are submitted for consideration. From a study of 29 portfolios a large number of the candidates did not appreciate that a drawing is simply a means to an end, the end being, of course, to build supremely well. This requires the assistance of a very large number of persons, both on the site and in the contractors' and subcontractors' works, who have to interpret the architect's designs through the drawings. Many of the candidates, however, did not seem to appreciate the fact that working drawings, sketch schemes and schemes for interior decoration require totally different presentation.

The poor foreman, with all the complexities of modern building, has got enough to worry about without having to sort out the pot plants on the constructional drawings and I would like to make a plea for a change in the present fashion of spacing each letter in a title or notes on the drawing at one inch centres. It certainly makes it very difficult to read which, after all, is its principal requirement.

Joinery details and what happens at intersections of head, mullion and sill when 'free shapes' are used need careful thought.

The three prizes of £60 each were won by Mr. K. G. A. Feakes, Mr. N. R. Grimwade and Mr. J. D. Robertson, of the Oxford, A.A. and Edinburgh schools respectively.

That concludes my criticism. I should like to end by offering my sincere congratulations to the winners, wishing those who are runners-up or also-rans better luck next time. All of you by entering have gained some knowledge and experience. If my remarks appear to you unnecessarily hard, please accept them in the spirit in which they are made. In addition then to my congratulations I offer all competitors my best wishes for their future work.

*Editor's Note: Mr. Lobb's comments on several of the unplaced entries have been omitted from this report. We will send on request to any competitor who was unable to be present at the Criticism a copy of Mr. Lobb's comments on his entry. Competitors should state the pseudonym they used as well as the competition.*

## VOTE OF THANKS

**Mr. W. H. Ansell, M.C., F.S.A.,** Past President, moving a vote of thanks to the President for his address and to Mr. Lobb for his review, said: I should like to congratulate the President not only on his wise and practical address but also on the way in which he has upheld the prestige and dignity of this Institute in discharging his Presidential duties. We knew, of course, that he would do so, but still it is pleasant to find one's beliefs corroborated by actual experience.

The address will well repay reading quietly afterwards. I was impressed by its practical nature. The President did not ignore any of the conditions of things as they actually are; he faced them resolutely. I suppose that his estimate of 90 per cent of an architect's work nowadays being factual and only 10 per cent being dreaming and designing is correct, but we must recognise that the 10 per cent dreaming and designing is the leaven which leaveneth the lump. The unpleasant duties which the President sketched out for us are necessary to bring a building to the point of contracts.

There are several things nowadays which retard the progress of ordinary building jobs—too many administrative requirements, restriction of materials, frustration as regards licences—but they are becoming fewer, although even now there are too many of them. By the time that the present students come to assume the responsibilities which were sketched out by the President, no doubt these restrictions will have become still fewer or even have disappeared altogether, or at least we may hope so.

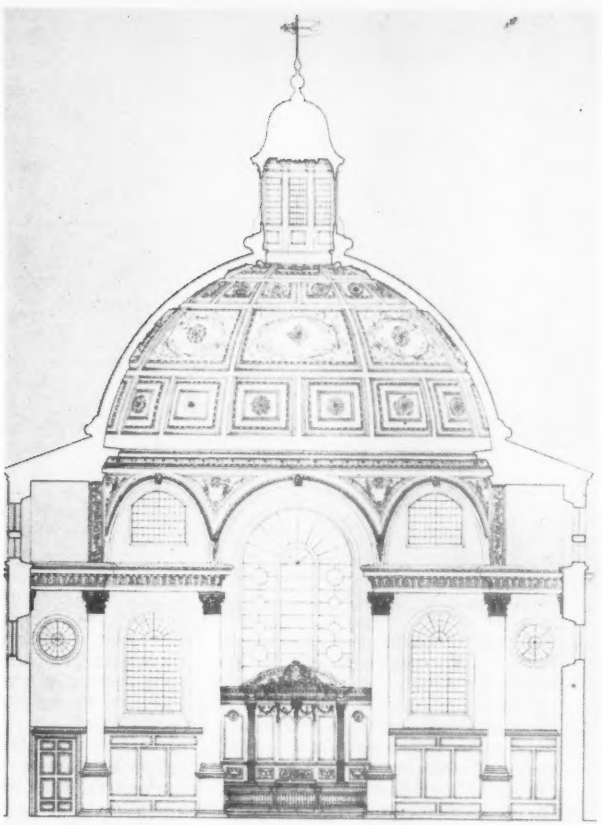
There was a sign of the times in THE TIMES last week, when there was actually a column of advertisements relating to church repairs. That, I thought, was significant. It was obviously in anticipation of the £4,000,000 which it is hoped will be collected and spent on such work. The work of church repair is difficult and it is far from remunerative in an architect's office, requiring as it does a vast amount of personal attention and supervision; but it has its own recompenses, its own satisfactions, and I trust that more of our students will fit themselves by special study to restore and repair historic churches and other buildings.

The Owen Jones Studentship. Certificate and £100 for the study of colour in architecture. Two of the five sheets submitted by the winner, Mr. John Arthur Wells-Thorpe [*Student*], of the Department of Architecture, Brighton College of Arts and Crafts

To turn now to Mr. Lobb, I would say that only those who have done this job themselves know the enormous amount of labour that has to be put into the making and the building up of this criticism. Mr. Lobb modestly disclaimed being anything other than the mouthpiece of the juries, but when the jury has finished its task it is released from service; not so Mr. Lobb, who has to go through all the decisions and blend them with his own comments into an acceptable and well-written whole. I am sure you will agree that he has done that. I did not think that his comments were by any means too hard, and I shall be interested to hear what Mr. Mills has to say about that. I am sure that A.A. students in the time of Mr. Robert Atkinson would have thought Mr. Lobb's comments quite soothing in their kindliness.

Mr. Lobb mentioned that for some of the major prizes there were very few entries. He did not refer to the Rome Scholarship, but that too suffers from the small number of people who go in for it.

1 ST. STEPHENS - WALBROOK



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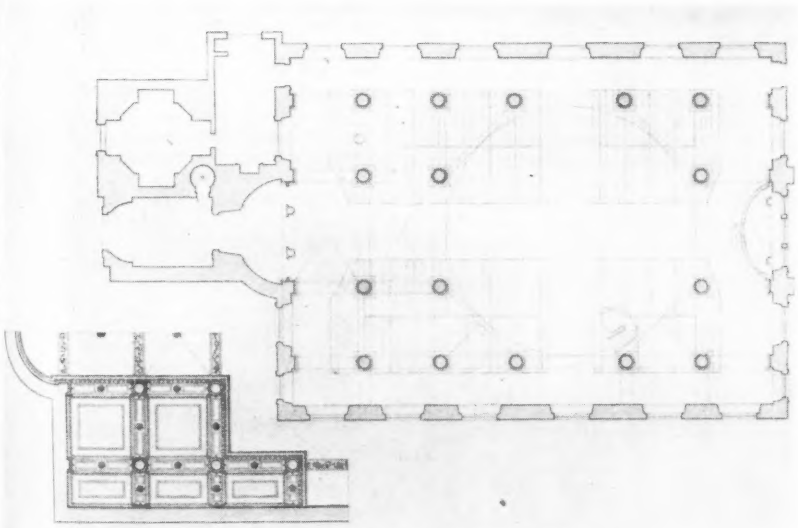


4 ST. STEPHENS - WALBROOK

The R.I.B.A. Silver Medal for Measured Drawings and £75. Awarded to Mr. Tadeusz Lesisz, of Oxford School of Architecture. He submitted five drawings of which one other is on page 142

Since the time of Inigo Jones, architects and painters, sculptors, writers and poets have been willing to make tremendous sacrifices to get the inestimable benefit of a year or more in Rome. The Rome Scholarship carries with it £400 a year, and even in these days that is not a sum to be despised. The entry a few years ago was as many as thirty or so, but this generation of late has sent no more than about a dozen, with only some half-dozen going on to the final stage. I think that is a pity, and I wonder whether there may not be some misunderstanding. No student need fear that he must allow the siren song of the archaeologist to lure him on to the archaeological rocks. A certain amount of archaeology is, of course, necessary for any architect, but it is by no means the intention of the Faculty of Architecture to create archaeologists. There is no place on earth like Rome for giving a student the power to recognise and appreciate quality in architectural design—the quality that is inherent in all fine building of whatever period and in whatever manner.

**Mr. Edward D. Mills** [*F*], in seconding the vote of thanks, said: The difficulty about seconding a vote of thanks is

The R.I.B.A. Silver Medal for Measured Drawings and £75. Winner, Mr. Tadeusz Lesisz

generally that the proposer of it steals all one's remarks. That has happened tonight and many of the things which I proposed to say have been said for me by Mr. Ansell, who has undoubtedly said them better than I could. Another difficulty in which I find myself is that, in proposing a vote of thanks to the President for his address, it is almost impossible to pick out one or two important points to mention, because there are so many of them. We have listened to an address which was full of both wisdom and humour.

I was delighted to hear the President remind us that we are not students only until we receive that very valuable piece of paper which denotes our election as an Associate of the Institute. We in fact continue to be students throughout the whole of our career, and, if we cease to learn as we develop, we cease to be good architects. I am sure that one should be a student throughout the whole of one's active life.

I was also glad that he reminded us of the importance of simple things. One is inclined to think in very high and mighty terms and to forget such simple things as clear drawings, easy presentation and simple readable lettering.

Thirdly, the President referred to my own hobby-horse, the importance of detail. Whatever one's architectural outlook may be, the buildings which one produces are of little value if their detail is not properly studied. Whether we are contemporary designers or traditionalists, the importance of detail cannot be overstressed.

It is a personal pleasure to me to second the vote of thanks to Mr. Lobb, because we have known each other for very many years and we were students at about the same time. I have watched with envious eyes his rise to fame, and I was delighted to see his name in the Honours List following the Festival of Britain. All of us who were concerned with the South Bank Exhibition appreciated the kindly way in which he drove us along and the efficient way in which he managed to persuade contractors to deliver things in time and to produce materials which were alleged to be unproducible, and even persuaded men to work who did not want to do so. We found his support and enthusiasm invaluable.

Mr. Lobb's criticism of the work submitted for the prizes and studentships was most helpful. The duty of a critic is to criticise, and I am sure that Mr. Lobb's remarks were received in the spirit in which they were offered. I am sure also that most people will learn a great deal from them.

It is disappointing to note the lower quality of the work submitted for these important prizes, especially as many of the subjects have been more realistic and related to everyday life and problems. The entrants are not now required to design Renaissance palaces on sloping sites in Southern Italy or Benedictine monasteries in mountainous districts. Complaints were made about such subjects being set, but now that we have gone to the other extreme and a practical problem on a real site is set we are not getting the standard of work that we should expect. I think it is very unfortunate that this position has arisen, because it does not encourage those who set the papers and design the subjects to follow the advice of people who criticised the previous design programmes.

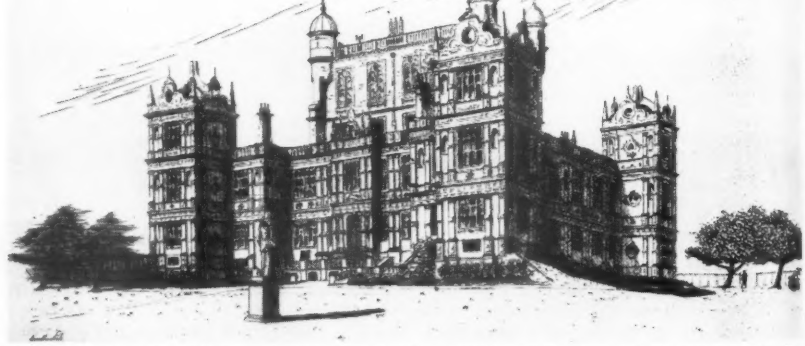
Mr. Lobb also mentioned the importance of detail. Detail is disregarded not only in buildings that have been erected but in designs by students who hope to erect buildings, and I think that that is the stage at which we should start to learn the importance of detail. I hope it is a lesson which we shall all learn, whether we are students or architects.

**The President:** I should like to express my thanks to Mr. Ansell for the way in which he referred to me and still more for the points which he stressed in his remarks. I need hardly say that what he said about the Rome Prize struck me very forcibly, and I hope that it struck others also. I also enjoyed listening to Mr. Mills, and I was most interested in his remarks about the type of subject that is now set.

**Mr. Howard V. Lobb:** I should like to thank Mr. Ansell and Mr. Mills very much for their kind words. One of the good things about this job of criticism is that one is never asked to do it twice. I have really enjoyed it, however, and I should like to pay a tribute to the R.I.B.A. staff who have to collect all this material together and who are invaluable in their help to the juries and to the critic.

To Mr. Basil Spence, who will be the critic next year, I offer my best wishes, and I am sure that the students who compete then will have a very useful criticism from him.

*The President then presented the prizes and studentships to the successful competitors.*



R.I.B.A. Prizes for Public and Secondary Schools. Sketch of Wollaton Hall, Notts, by Mr. Ian McNab, of Derby Grammar School, awarded a prize of £4 4s.

# Modern American Factories*

By W. A. Allen, B.Arch.[*A*]

A Science Lecture at the R.I.B.A. on 20 January 1953, Mr. C. H. Aslin, C.B.E. [*F*], Vice-President, in the Chair

AMERICANS HAVE DEVOTED a great deal of successful thought to industrial production and have established a structure of general ideas and a body of detailed knowledge which are now widely respected and studied. Hand in hand with this development, American designers have worked intensively on buildings for industry and have established a similarly firm structure of ideas and practices, but, for reasons which are not very clear, their factory developments are little known outside their own country. At the Building Research Station we have taken an increasing interest in factory design problems during the past three years, and I was glad to have an opportunity last summer to visit American factories and to spend some time with the principal designers there. I am equally glad to have this opportunity to acknowledge the generous way in which I was received and helped, and to pass on here some picture of the American viewpoint and practice.

Let me begin with a reminder that industry consists broadly either of the processing of materials or the assembly of components, for the picture of design begins right there. At its extreme, processing may itself be the factory, as is largely the case with, for instance, heavy chemical industries such as the refining of oil, where much of the plant is either out-of-doors or only partly enclosed. In a less extreme position on the scale is to be found heavy industry such as steel-making, where shelter is definitely required but tends to be markedly tailor-made for the plant and the job. Then a third stage can be detected where large machines such, for instance, as heavy presses are the rule, or large assemblies such as aircraft. These tend to need heavy-duty buildings with perhaps rather exceptional spans or heights or frames or floor structures. And finally we reach the broad mass of industry, the smaller-scale processing and assembly ranging from the making of motor-cars, for example, to the baking of bread and the assembly of radio valves. These seldom require anything very exceptional in the way of span, heights or floor structure, but may often be quite particular about the indoor climate.

The American approach to the design of industrial buildings is interesting initially in the way it is led by the work of the great design firms, first Kahn's, then Giffels and Vallet, and Austin's of Cleveland, followed now by a growing group of similarly balanced but generally smaller organisations. The three I have mentioned have staffs ranging in size from about 400 to 850, and comprise—as one would expect—architects and engineers of all kinds; in one case the design firm also is a contractor, and in another it does production engineering layout. None limit themselves to factories, but these are their special interest. It requires no stretch of credibility to believe that such organisations can acquire a very expert approach to their work, especially where, as in this case, the type of building they are interested in is also at the focus of a nation's interest. At the present time the three firms I mentioned are handling between them some £200,000,000 of work annually, the great bulk of it being factories.

To every action there is an equal and opposite reaction, and in this case the reaction to this organisational set-up in design has been a marked growth of expert buying on the part of the big client firms, some of whom have gone to the point of building up a separate firm to buy and maintain their factories. These people are also very expert and exercise a strong influence in the factory market.

Now we come to what is, to me, the most interesting result of all this specialisation. One might reasonably have expected that it would lead to closer and closer tailoring of the factory to the job and to variety in design; but it has not. It has gone right in the opposite direction, for despite all the competition between designers and all the diversity of their clients' needs, there has emerged from both sides one conception, and one conception alone, of the right type of building for the broad mass of industry. This forms the core of American industrial construction today, and designers and clients alike depart from it, on the whole, as little and as seldom as possible. The highest practicable degree of adaptability is their expressed aim, and the consequence is a single type of building which houses an increasing variety of industry. The only outstanding exception was said to be the chemical industry, which was excepted because it has—so it is claimed—become so secretive that no one can find out its factory requirements and build good buildings for it.

At first impression this may perhaps seem to some the antithesis of logic, economy, and functionalism (to use a now unstylish phrase). But the explanation is simple and seems convincing; adaptability, they say, is in the national interest because it facilitates the transition from war to peace production and vice versa, thus increasing national strength; and it makes for a better private investment because an adaptable factory will give good working conditions for a long time into the future, or be a more saleable article if a sale is desired. It is not difficult to believe this reasoning to be sound, especially if we cast our minds back to the strains we underwent in our own factories in the early years of the recent war.

And now, with these preliminaries out of the way, and the idea of a basic type of building in our minds, let us take a closer look at the structures themselves.

The chief elements in adaptability as practised at present are adequate height, adequate bay size, a roof system capable of taking reasonable hung loads at any point, a clean floor plan, facilities for good and easily modified artificial ventilation, often up to full conditioning, and a high uniform level of artificial light. It will perhaps be best if I say something about each of these in turn, and try thus to build up a picture of the factory type as a whole.

The clear height usual below trusses today is 18 ft. This figure is an increase on immediate post-war practice, and further increases appear to be likely, partly to be able to accommodate light travelling cranes in the future, partly for increasing machinery heights, and partly to make the building more suitable for warehousing, if that becomes necessary. I was told at one large firm that their new buildings are all going up to 30 ft. in the clear for these reasons, with 40 ft. as the figure where warehousing is definitely expected.

The plan is usually laid out on a 10 ft. grid, with a bay size of 40 ft. by 60 ft. tending to 40 ft. by 80 ft. or 40 ft. by 100 ft.; I doubt if there will be much pressure to go beyond this size for ordinary purposes. They use flat steel trusses, about 6 to 8 ft. deep, and an extremely interesting development—a straw in the wind—is the laying in of stocks of these standard trusses by steel fabricators, so that they can be taken 'off the peg' as it were. This saves a great deal of time and trouble for everyone, of course, and is one of the factors that makes possible their common constructional times of four to five months for factories. As a matter of interest, it commonly takes another two and a half months or so to begin production.

The trusses are classified according to the hung loads they are designed to take, which are generally over a range from 1 to 3 tons per panel point, or three times this amount per bay. Figures of 6 to 10 tons at each of three points in a truss were mentioned as representing some recent factories.

Adequate bay size, adequate height, and adequate facilities for hung loads are important factors in the efficient use of space in a factory. One often wants very high machine population densities, and these may only be practicable if there is considerable freedom to hang loads and little interference from columns. Some very interesting comparisons between the efficiency of old and new space were quoted to me, one example of which was a firm

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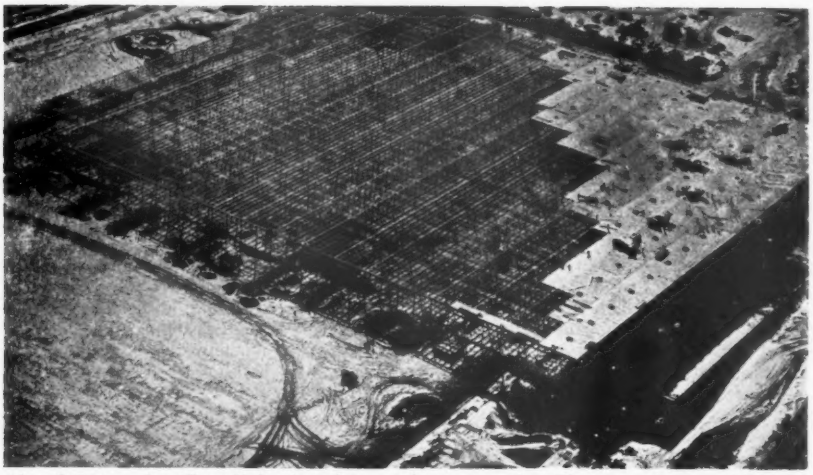


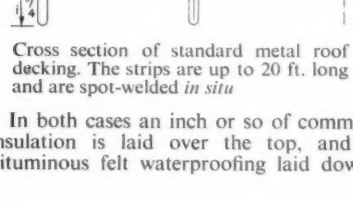
Aircraft factory, by Albert Kahn Associates, under construction. The supporting stanchions are unusual, but the general character and roof assembly are clear

moving into an area of three-quarters of its former size and able yet to expand production by 50 per cent.

I think it is the case that they use one size of stanchion as far as possible—an 'H' section, not an 'I'—but I did not fully establish the point. It is the case, however, that there is electrical control gear available and made explicitly to fit the recess down the side of one particular size of 'H' column. It is enviably neat, and clearly represents a degree of standardisation in stanchion sizing sufficient for a good market to be anticipated.

While we are discussing the frame, I will just sketch in the common cladding system. Walls up to sill height are usually of brick, or hollow tile with a buff glaze. The hollow tile gives an excellent appearance and is quickly laid. Above the windows external sheeting is usually asbestos, but aluminium is also used now. Internal sheeting is usual, using flat asbestos, and an inch of common thermal insulation is inserted in the cavity. Walls consisting of large precast concrete panels are now being used experimentally by Kahn's and are said to be promising. Brickwork is a bottle-neck.

The roof consists usually either of sheet steel units or concrete panels. The steel units are of simple strip, 10 or 20 ft. long, and turned down at the edges to form a sort of welt as shown here below. These are spot-welded to the trusses *in situ*. The concrete panels are 1 in. thick, turned down about 4 in. at the edges, 2 ft. wide, and spanning between truss centre lines.



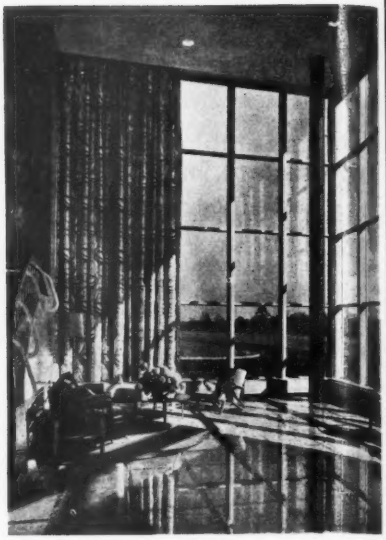

Cross section of standard metal roof decking. The strips are up to 20 ft. long and are spot-welded *in situ*

In both cases an inch or so of common insulation is laid over the top, and a bituminous felt waterproofing laid down. The concrete panels are popular because it is so easy with them to form a hole in the roof for local modifications, as for instance for supplementary ventilation for heat treatment and other hot processes. Adaptability once again.

Total steel weights of 12 to 16 lb. per sq. ft. were quoted for light to medium-heavy manufacture. They feel this represents conservative practice, but they are waiting for research to show the way to reductions. Perhaps the work by J. F. Baker and others, including some of my own colleagues, in plastic design and other aids to increased efficiency, will help here.

Small 'H' sections are now used for trusses to give neatness, and welding is customary.

Now that we have a picture of the structural system, we ought to look at the planning. Single-storey work is the rule now, on the grounds that horizontal transport has been more highly and economically developed than vertical. The chief elements in the plan are much the same as they are here—an office block (usually two storeys), toilets and locker rooms, transformer cages, restaurant, the main plant and the boiler-house. We can ignore the office block and boiler-house for this discussion, but the location of the locker rooms and toilets and restaurant is an interesting problem. One requirement is that none of these should be on the factory floor for they interfere with adaptability in layout. Another is that toilets should be within 2 min. walk of all working areas. A third is that they should not be below ground, where supervision becomes more difficult. On the whole American designers have tried to keep the whole floor area clear for the owner right up to the bottom chord of the trusses, and this has led to a trend to put locker rooms, toilets and transformers into the depth of the trusses, just below the roof. Since this is not always easy to arrange, there have been occasional uses of penthouses for this purpose. This is simpler for planning, but means climbing a great height to reach a toilet, and the height is, of course, increasing. For this reason, the third course is the one that seems most likely to survive, which is to put toilets, lockers and transformers and sometimes the restaurant on mezzanines. This leaves the owner his floor space clear, and is a reasonable compromise in other respects.



Works entrance to a Johnson and Johnson factory at Metuchen, N.J., by Fellheimer and Wagner. An incentive to cleanliness in the factory

While we are on this question of planning I should like to mention some points about entrance design which interested me. As I visited successive factories I became increasingly aware that entrance lobbies were given a lot of attention and that they shared certain characteristics. They were much of a size, about 25 ft. or 30 ft. square and 15 ft. to 20 ft. high. They had good, and often magnificent floors, good modern carpets and furniture, attractive indoor planting and splendid curtains. At a strategic point there would be an efficient looking control desk with an efficient and very presentable receptionist in control.

In my innocence I presumed all this was to impress the visitor, and no doubt this is often the main intention; but it is not always so. As you probably know, it is quite a common practice in America to have one entrance only for management, personnel and visitors alike, and where this is the case it has been noticed that a good entrance had a very good effect on factory housekeeping. Apparently the men cannot cross a well-designed room of this size, especially over a fine floor (and pass the receptionist as well), without feeling that dirty shoes, dirty clothing and bad behaviour generally are out of place. This has its effect on them inside the factory itself, and there is evidence from some firms that it has a good effect on conditions at home as well. It seems to cultivate the sense of human dignity, personal pride and responsibility.

There is nothing surprising about this.

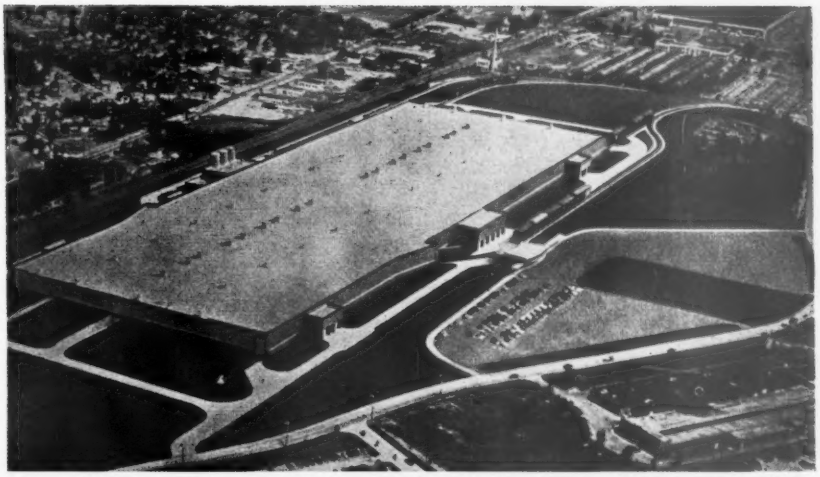
of course, when you consider it, and it is happening on this side of the water too. We are told that it is the case at Gibberd's Appleby-Frodingham mills, and something of the same sort has happened at Hervey Rhodes's modernised woollen mills in Yorkshire. I have not seen a British entrance fully developed in the American manner, however, except at Bryn Mawr; and I do not recall a receptionist there. I suspect her of being an important element.

And now, back to adaptability, and to their highly interesting and controversial approach to lighting.

Natural lighting from the roof is attempted less and less. The history of its decline runs somewhat as follows. North lighting was abandoned 25 or 30 years ago because they found it difficult to ventilate, and the directionality of the lighting created serious working difficulties, as we too sometimes find. They went over to the monitor, which reduced the directional effect but gave uneven and inefficient lighting the way they did it. With our knowledge of prediction techniques we can fully control distribution and improve efficiency to some extent, but Americans have not developed the design of daylighting very far, and the defects of their natural lighting no doubt created receptive conditions for good fluorescent lighting, which now is run 100 per cent of the time regardless of whether there is daylight or not. Then wartime experience of black-out factories without roof lighting showed that the artificial lighting was acceptable by itself, and that if the money saved on capital and maintenance costs of monitors (some 10 per cent of total factory costs) were put into good artificial ventilation, the net result was much better working conditions. Now the benefits of good artificial ventilation are so convincing, and the difficulties of adequate natural ventilation are often so great with high and wide factories that the use of monitors for this purpose has become difficult to defend.

This in turn means that there will be so much overhead ducting that appreciable obstruction will be caused to light from roof glass. Since further obstruction is caused by the mass of fluorescent fittings, by the toilets and locker rooms and transformer cages, and by the steelwork, roof glass as a source of daylight can easily lose an appreciable amount of its potential value. Its defence is attempted on grounds of psychological benefit or of fuel saving, but the evidence for the latter is not yet forthcoming, while the evidence for the former is uncertain, and the case, if any, may be for a luxury rather than a necessity. I am going to return to this later. It is recognised quite clearly that the smaller the factory the more likely it is that the natural agencies will be best and cheapest.

All this is not the same as the case for the completely windowless plant, which is defended by some but by no means all designers and clients. Americans have experimented, as we have, with window walls and with vision-strip fenestration. The former has, of course, failed; it admitted so much solar heat and caused so much glare that it gave rise to the production of special blue anti-sun glass, but this was so expensive and opaque that it was pointless to go on with the window-wall. On the other hand, the vision strip, about 6 ft. from sill to lintel, can have what are loosely called psychological effects of relief even in the middle of a factory 500 ft. square, and I believe this to be the policy that will survive and become standard in association with good fluorescent lighting. In addition, we at the Building Research Station think that if further so-called psychological benefits of this kind are needed, the best way to get them may be by dropping a planted patio into the factory at intervals—perhaps a complete bay with glass all around it. Incidentally, the tinted glass is retained even for the vision strip.



Lincoln Electric Company, Cleveland, by Austins of Cleveland; a notable example of the windowless plant

It was surprising to find, with this tendency to rely on artificial light, that the quality of artificial lighting was poor. Its quantity, at uniform levels of 35 ft. candles or so, was very satisfying, of course, but not once did I see in a working area any direct light allowed to reach the ceiling, though an upward proportion of one-tenth to a quarter has been a common recommendation both here and in America in recent years. The lighting people deplore this, but clients have been curiously impregnable to advice in the fear that they were losing something. Fortunately it has now been found that if fittings are perforated to allow a proportion of upward light, the better ventilation of the units keeps them so much cleaner, and lets the lamps operate so much cooler that there is usually no appreciable loss of operating efficiency as compared with conventional direct fittings, and the visual benefits are thus obtained more or less for nothing. This is a very interesting and probably influential finding.

Fluorescent lighting is in twin-tube fittings in substantially continuous rows at 10 ft. intervals. A search for cheap suspension is on, and the cheapest I heard about was the use of $\frac{3}{8}$ in. steel cable tightly stretched across the bottom chords of the trusses; these cables were termed 'messengers', and could receive fittings direct without enough sag to show from below. The cheapest wiring was said to be done inside a cavity along the crown of the fitting. A life of up to 10,000 hours was said to be regularly obtained with some modern hot cathode fluorescent lamps. This was important, for I saw no very satisfactory ways of getting at fittings to clean them.

Filament lighting seemed rare, except for deep-drawn internally silvered lamps, which were used to punch light down where there was a high population density of machinery. These gave considerable glare, but of course stay clean. They are prone to fracture if water drops on them, so they need a shade of some kind. I have not heard of these being available here yet.

High-powered mercury vapour lamps with supplementary filament lighting were common in high bays, where the wages to riggers on high work made it necessary to restrict severely the number of units to be fixed. The glare was shocking. The unpleasant colour was relieved by the filament lights which fortunately are rendered necessary by the fact that these mercury vapour lamps take a long time to return to full-light if turned off, as, for instance, by a momentary power failure. But unions support the mixture on grounds of better colour. The illumination had nevertheless some of the dreariness one usually associates with mercury vapour lighting. The really interesting thing to see was the uniform and relatively strong illumination which is taking the place of various levels of illumination related to visual difficulty of the task, as usually recommended in codes.

If the poor quality of the artificial lighting was a surprise in factories with an artificial climate, an even greater surprise was the almost total absence of colour. Two tones of grey-green with occasional touches of cream were thought to be fairly described as 'colour in industry'. In this respect the good British factory seems to be a long way ahead of its American counter-

Caterpillar Tractor Company of Peoria, Ill., by Giffels and Vallet, Inc. L. Rossetti; a typical plant without top-light but retaining windows in walls

part, and I can record nothing more than surprise and disappointment.

Artificial ventilation is, of course, the established practice; it is not always done, but those who do not do it usually regret it in the summer. One firm said that it was regarded as worth while if they needed it as often as 20 days in a year. Common practice is to design for 4 to 7 summer air changes, or about 2 cfm per sq. ft., and to reduce this to about 1 to 1½ fresh air changes per hour in winter, with recirculation of up to 75 per cent of the total air, thus utilising the remainder of the capacity of the fans. The air may be brought in through the side of the factory and the push applied there, or through the roof, with the plant in a monitor or penthouse, or in the depth of the trusses. Sometimes an external trunk or monitor is used for the main distribution at low speed and secondaries are then taken down into the roof space, though the whole lot can be fitted into the roof space and seemed to me a preferable practice because it avoided the cost of the upstanding monitor. Smaller trunking and high speeds are used sometimes with the whole lot in the roof space, but noise then becomes a risk. Whichever of these alternatives is used, the outlets are usually arranged at one per bay, usually at truss level. Then there will be power extractors located between the inlets, and suitably powered to leave the building slightly pressurised by the incoming air, after allowing for extraction at special processes.

Distribution has been given much thought because it has been found, as one would expect, that if men have no natural ventilation in summer, there must be a real swirl of air to produce an acceptable alternative condition. In winter, however, uniformity must be provided, and the unions are said to be especially watchful for this. So the anemostats or outlets are tending to be designed for a hard downward squirt in summer, and a wider, gentler winter distribution.

Since they have the artificial ventilation plant, heating is naturally done by warming the circulated air; no radiant heating was seen and some designers regretted this. Cooling is said to be becoming common, but humidifying and filtering are still unusual, though filtering is perhaps fairly widely accepted for industries needing cleanliness.

The most ingenious and the most seemingly sensible plant I heard of was a standardised set of units, assembled in pairs on platforms which were then hoisted to the roof and coupled to the ducts. Each set had space for five components—fan, heater, cooler, filter and humidifier—the unnecessary components being omitted and replaced by spacers until wanted by some change of manufacture.

All big doors and the periphery of the factory are commonly protected by supplementary warmers, thermostatically controlled to drop a hot curtain whenever necessary, as is sometimes done here.

Most of the big factories seem to provide supplementary power to their fans to run at half-speed (which requires one-eighth power) in case of air attack.

Some precise data on ventilation practice may be of interest. Giffels and Vallet, probably the largest firm specialising in factories, design to air velocities of 2,700 ft. per min. to keep duct sizes down and to avoid multiplying intake plant; they can serve about 20 bays with a standard fan set-up of 78,750 cfm capacity. One plant seen had velocities of 2,200 to 2,400 ft. per min. and regretted this because of the noise; but this was an early windowless plant, built about 20 years ago, and high velocity design is now much improved. Nevertheless, some clients insist on velocities as low as 300 ft. per min.

One apparently fairly typical group of operating criteria was noted:

Summer: 95° F outside, 80° F inside (dry bulb)
75° F outside, 67° F inside (wet bulb)
Winter: 0° F outside, 70° F inside (dry bulb)

Relative humidity was intended to be constant at 50 per cent.

One firm said that relative humidity was varied in practice from 30 per cent in winter to 60 per cent in summer, with dry bulb temperatures indoors not more than 10° below the figure outdoors, to avoid thermal shock.

I have said nothing about power, and could not attempt a detailed record. It was obvious, however, that no fixed view had been reached as between overhead and floor supply to machines, though the primary cable is always below ground to reduce risk of damage from fire. On the whole, overhead supply to machines was preferred for flexibility and economy, fed from substations designed to supply areas of 200 ft. to 300 ft. square. Floor distribution seems only to be attempted if woodblock floors are available to facilitate changes (which are constantly going on in American factories); but woodblock floors are more expensive and dirty than concrete, and are by no means customary despite their softness and kindness to dropped tools. And even where these floors are used, the overhead bus duct, with its advantage of flexibility, is liked. It adds, unfortunately, to the complexity of the scene by its forest of feeds, but its greater flexibility seems to keep it ahead of floor distribution. The cleanliness of the latter still keeps it in the picture, however.

The only other point of detail I want to record is the almost standard use of sprinklers, which take the place of all other fire precautions. Their use is even leading to serious consideration of timber factories again.

This completes my picture of what is, so far as I can judge, the norm of American factory design. It is no doubt subject to considerable variation in practice, but this is to be expected; it does not pay to make a thing of this kind so adaptable that one type covers every conceivable need. The surprising thing is that in practice the departures are so small and so few, for there is no doubt that this norm comprises the bulk of work done by the big designers, and that they can use it everywhere, almost from the Arctic circle to the Equator, and for a very wide variety of industries.

Perhaps another surprising thing, when one thinks about it, is that this form of building, now explicitly the main standby of the industry of the most productive nation on earth, is—so far as I know—not yet represented by a single fully representative specimen in this country, or at most by one or two: this, to me, is so interesting that I would like to take a few minutes to consider what lessons for us there may be in the American work.

First of all, I do not think we should have

any doubt about aiming for adaptability; our inheritance of low-grade working conditions, and the strains to which they were subjected by black-outs in the recent war, seem to me to be evidence entirely on the side of this principle.

Harder questions arise if we consider particular ways of providing adaptability, but I offer the following line of thought for consideration.

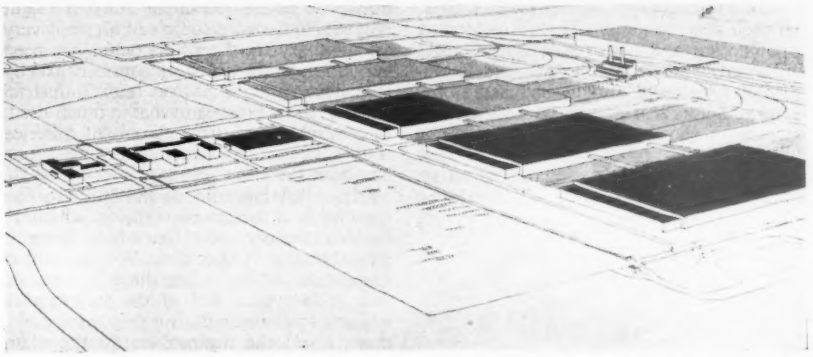
First, there is this question of natural lighting. We have been accustomed to attach a lot of importance to it, but how important is it? We operate multi-storey factories without top light; we operate vast numbers of factories with glass so dirty that it hardly counts as glass; and we have large numbers of people working in department stores where there is no daylight at all. And I have seen one completely windowless factory in Britain where I think daylight would have given worse rather than better conditions. I think we may sometimes over-value it for some purposes therefore. I am distinguishing between toplight for illumination and side windows for a view, of course; I think the case for the latter is very strong and I, at least, am not going to question it.

The American designers' view about toplights is, as I have said, that they are more trouble than they are worth for the medium and large plant, and that an increasing proportion, now about half of their clients, now agree. But we cannot take this entirely at face value, for Americans use factory sash in place of patent glazing bars, and sash needs more maintenance, which is one of the things they complain about. Also, they never learnt to handle their daylighting efficiently.

On the question of cheapness, I do not know how to add up the score yet. Daylight saves some electricity, but in modern industry, visual requirements are so exacting that daylight is often inadequate, so it does not do away with the need for artificial light. In any case electricity economy is offset to some extent, and perhaps substantially, by the additional heating and sometimes cooling loads, resulting from roof glazing. Capital costs are not much affected, for you cannot economise in artificial lighting plant merely because you have daylight part of the time. I rather suspect that in this country the economic argument might come down slightly on the side of daylighting, but I would not be sure.

Then, too, I think one must keep an eye on wartime conditions. This is when factories must operate at highest efficiency, and unless peace-time conditions are geared to an easy black-out, then the tendency is for wartime working conditions to deteriorate. It was the coastal black-out factories in America that convinced their owners that money spent on good artificial light and ventilation was better spent than the same money on monitors.

I am suspicious, too, about the amount of obstruction which occurs often due merely to steelwork, walkways, overhead gear and high machinery. I have seen roof lighting reduced to a token only by such things, and then I am sure it is not worth its cost, at least for illumination. But these admittedly are extremes, though I fear they may be trends, and that adaptability may add to the trend. I am sorry to labour this point, but it is very important and I am trying to help without being misleading.



Appliance Park, Louisville, Ky., by Albert Kahn Associates, now being built for International General Electric Company. The three buildings in the foreground are the hospital, the administrative and sales divisions. The main row consists of five manufacturing buildings, which can all become one if necessary. Behind is the warehouse. Appliances are defined as units requiring two or more hands to lift

Ventilation, of course, plays a part in the argument. Natural ventilation is adequate for quite a considerable proportion of industry, but rising demands of dimensional exactness and cleanliness are steadily increasing the need for artificial ventilation because of its controllability. In America this need has gone farther than here, and is added to by climatic extremes, but a considerable number of British factories now use general ventilation and some degree of air conditioning, and of course local ventilation for many processes is standard. It seems to me that when a case for artificial ventilation is made out, the case for natural roof lighting tends to diminish appreciably, for the ventilation plant also does appreciably obstruct light, and the glazing adds to both the heating and cooling loads. If we were to consider factories abroad, in more extreme climates, the case for roof glass might diminish to nil, if enough electricity were available for light and ventilation.

As a last word on this particular point let me say that if and when roof daylighting is used, it should at least be designed in relation to indoor cleaning gear which makes possible frequent cleaning. Gibberd's built-in trolleys at Appleby-Frodingham's are a good answer, and I do not really think glass that cannot be cleaned frequently is worth very much to anybody. Once every month or two is the sort of thing I mean.

To the Americans, adaptability (and economy) practically rules out reinforced concrete, and especially the shell forms of this construction. There are substantial difficulties we all know about for daylighting with some of these forms and for ventilation, but the key thing to the American designer or client is the lack of facilities for hung loads, and the intractability of the system when you want to cut holes in the roof for ventilation and other modifications. The architectural pleasures of shells are often spoilt by overhead gear, too, but the alternative location in the floor usually is more expensive. I do not know answers to these criticisms, and I think we ought to examine this trend carefully, at least so far as the common run of factory is concerned. No doubt there is a good case for it in some circumstances.

Cost is something that is so difficult to discuss in general terms that I have avoided it on the whole, but there is one point I think should be mentioned. We are often told that economy is essential, and designs are sometimes stripped to the bone. Is this desirable? As far as I can see from the figures available to us the average British factory represents, in capital costs, something like 3 to 5 per cent of total production costs, and American figures are only slightly higher. If this is the case, it seems very easy to urge economy unwisely, for the difference between bare necessities and good working conditions are then so small a proportion of costs that they could scarcely fail to be recovered in increased productivity. The important point for architects, of course, is to know what improvements in conditions can influence productivity, and to concentrate on these.

May I ask you finally to consider what new direction, if any, we should now take? My own feeling runs somewhat thus: that we should press for the standardisation and stocking of clean, economic, adaptable and attractive standard steelwork; this would save time and labour, and give a focal point for the design of other good standardised equipment. Then we should ask for adaptable ventilation plant along the American lines I described, co-ordinated with the steelwork. No doubt we should have monitors available to us also. And we should get good standardised lighting and power gear. Incidentally, I am sure that the standardised lighting should not be fluorescent alone, but combined with a proportion of filament sources. Then I should like to see an effort made to devise reinforced concrete structural design to give more adaptability, for it can have distinctive merits of cleaner design and lowered maintenance costs; but this means

a marked diversion from present trends. All such developments will lead us toward rapid design and construction, low costs, and good working conditions. And finally I think we should aim to increase architectural studies of industrial technology, because a sound policy of industrial building design can be one of our best contributions to our national productive efficiency.

*Note: Mr. Allen is preparing an extended report, complete with technical data, on his study of American factories. Those who could make use of a copy should address their request to him at the Building Research Station, Garston, Watford, Herts.*

## DISCUSSION

**Mr. F. Gibberd** [*F*], moving a vote of thanks to Mr. Allen, said: I found Mr. Allen's paper extremely stimulating, because all the time he brought out the human and the architectural problems in factory design. To me the highlight of it was the idea of adaptability. It seemed to me that a very strong case was made out for it. I was also very interested in the use of H-sections for beams and stanchions. Mr. Allen did not say very much about welding, but I imagine that a lot of welding is used in those sections.

A short time ago I saw some photographs of recent steel structures in Switzerland. It is astonishing how strong and clean they are and how very architecturally they are designed, as compared with some of the very clumsy work over here. I imagine the same sort of thing is seen in America.

The electric control gear which fits in the recesses of the H stanchions is a splendid idea, as are also the patios. It seems a very good idea in a factory to penetrate the solid blocks with these little gardens with glass sides.

I shall be very interested to learn what you all think of this total artificial lighting. To me it sounds absolutely horrible. Of course, if you design a monitor roof and then hang underneath it a web of fluorescent tubes and sprinklers and ventilation trunking and supply cables, and also house the lavatories up there, you will not get much daylight and there does not seem to be much point in having monitors. But somehow I cannot accept this. The B.R.S. have shown that you can have really splendid lighting conditions. At Harlow New Town we have used the B.R.S. standard monitor extensively for our factories. Whilst they are not as big as the American factories, we do get splendid lighting conditions. They use no artificial light in the day time, except for a few lights over machines where complicated work is being done. To me lighting on all day means a waste of coal and of transport of coal, the cost of power stations and of supergrids, and so on. It is very encouraging to see that we are ahead on daylighting, and it is because of the B.R.S. and people like Mr. Allen.

**Mr. A. R. F. Anderson** [*F*]: I liked some of Mr. Allen's typical phraseology—dropping down the patios, punching down the light and squirting down squirts of air; it is very stimulating. But the whole paper has been very stimulating which of course is exactly the effect America has on one. 'Industrial climate' is an expression that is much used, but the whole industrial climate of America simply cannot be understood unless one has been there.

Mr. Allen has told us that four to five months is a reasonable time in which to build a factory, and the whole thing is geared to that kind of time. We just cannot understand it. We would think in terms of four or five years, with all the performance we have to go through. But they think along those lines; the atmosphere of the place and people is intensely stimulating.

I think I can best say 'thank you' to Mr. Allen by asking certain questions. The first relates to the Kahn, Giffels and Vallet and Austin organisations and the architect as a professional man. I understand the latter to mean that he personally is responsible for advising a client. Can men in such an organisation completely keep their professional integrity? Is it possible for an architect to do this in an organisation which has a sales aspect.

I was simply horrified with the artificial lighting I saw in American plants. The intensity was far greater than anything I could have imagined. It was dazzling and the glare was appalling. The chief difficulty was the lack of shadow. I was looking at newspaper plants, and in type-setting, with light coming from every conceivable direction, the absence of shadow made the type flat and very difficult to see. I thought the artificial lighting was extremely brilliant but very bad. I was in the TIME AND LIFE building in 1946, when they were taking out the fluorescent lighting and going back to filament lighting. They may have changed half a dozen times since then, of course. Daylight type lighting—hot and cold cathode and all the varieties—is not universally accepted, although it is almost universally used. They put in an enormous amount of light and then, to cut out the glare, provide such things as aluminium egg-crate louvres at enormous cost. I think artificial lighting still has a long way to go.

Three times Mr. Allen mentioned conversion from war to peace or peace to war, air attack and matters of that order. I was interested, because I was doing that kind of work in many factories in this country in the last war. Are the Americans making serious efforts to face up to the problem of keeping a factory in production under air attack over a period? Are they considering, for instance, continuity of structure so that if one stanchion is blown away the whole building does not collapse like a house of cards but the stanchion more or less dangles and the building is still more or less usable, protective as well as weatherproof obscuration, air raid shelters and atomic bomb shelters? I do not know whether it is appropriate to discuss these matters, but at any rate I will ask Mr. Allen whether he has any comments to make as to their realism in that line.

Apart from the fierce electric lighting, the other thing that impressed me in American buildings was the incredible cleanliness. Nearly all the floors were highly polished, even in heavy engineering shops. The people working in the factory seemed very superior to the sort of people doing similar work in this country. I think it was simply due to the psychological fact that if you design a fine building, people will work better, dress better and be happier. Therefore, the architect does serve a purpose in society in that respect.

**Mr. J. A. Spon** [*A*]: It is clear that one of the outstanding points about American designers is that they look well ahead. When they plan their factories they build not on the basis of experience but on that of anticipation. I should like to ask Mr. Allen if the designers were working on any definite estimation of durability. How long did they think these factories would last?

Secondly, the trend today with factory production is to conduct manufacturing in the most economical way by using machines to an increasing extent. When one uses machines in that way, things become more and more complicated. The stage is reached where the machines are so expensive that one cannot afford to leave them lying idle any longer than is absolutely necessary. The trend in that respect will eventually be to work on shifts. With shift working—bearing in mind that in the winter in this country with three eight-hour shifts one is working sixteen hours in the dark—artificial lighting is of very great importance. The time worked in artificial light is a great proportion of the total working time. Does Mr. Allen think that that swings the balance in favour of artificial lighting?

Thirdly, I am puzzled about height in factories. I have always been under the impression that for general purposes such as warehousing the effective height in this country is 16 ft. to 18 ft. (I am not thinking of things which are necessarily very large in themselves.) I know that cranes are used, but if articles are stacked how do they cope with the enormous floor loads or deal with anything that is fragile?

**Mr. Allen:** In reply to Mr. Spon's question on durability, American designers think in terms of a fifty-year life for their buildings. Judging by those I saw which were twenty years old, they will do fifty years very nicely.

Americans commonly work two shifts a day—early morning to mid-afternoon and mid-afternoon to quite late at night. I agree entirely that the more you come on to shift working the more important becomes the question of artificial lighting. It is much harder to light a factory satisfactorily for three o'clock in the morning than for three o'clock in the afternoon. That is the real testing-time of the quality of illumination.

From this point of view, I should like to speak about artificial and natural lighting in general. Criticisms of fluorescent lighting are frequently made in terms of some bad early wartime installations or even of some still bad post-war installations, where you have only direct lighting components and no indirect components whatever. That is

thoroughly bad practice, especially in factories where the floors may be so dirty that you get no spilling back to the ceiling. You may get a great deal of hidden shadow content and no spill-back at all. If the ceiling is fairly bright, you reduce contrasts and get a much more comfortable and less gloomy condition, of course.

Mr. Anderson is right in saying that with shadowless lighting things have a flat appearance and very poor form. There is no sculptural quality, to use that word in a practical sense, about the things you see. There is frequently a high level of illumination with unsatisfactory vision. It is here that a mixture of incandescent and fluorescent lighting plays a part. A relatively small number of rather high-power filament sources can give great relief and improve the sculptural form. This is one of the important points to bear in mind, especially for shift work.

I do not think filament lighting is practicable for the modern factory. Normally, if you work to these high levels of 35 to 40 ft./candles, it is difficult to get glare-free lighting, and the heat from the sources becomes a major cooling problem. A large part of the electricity shows itself as heat in the factory. The more electricity you push into the factory the less heating and the more cooling work there is to do. In terms of filament sources, you are adding again to your heat load very considerably. I do not think, therefore, that filament lighting has much future—except as a supplement to fluorescent lighting—if you are to work to these high levels of illumination which are generally necessary now.

The International General Electric Company had the most clear views about height and warehousing. They are stacking to considerable heights. They are improving their pallet system to take the load off the units stacked; and they use a structural pallet system which is picked up by overhead cranes. These pick up as many as three layers deep of their bigger refrigerators in one go. That would take the height at least up to 18 ft. or 19 ft. They are looking ahead, with the rising curve of height for packaging and storing, and no doubt they will go to 40 ft. in ten years' time. That is their view, but I cannot tell you whether the data are exact.

As for floor loads, they tend to regard warehousing as potentially interchangeable with factory space, and they therefore stick to one storey for the most part. They are enamoured of one-storey buildings. If they cannot get room on their present site they will go elsewhere and face the organisational difficulties. They will go anywhere to get a single-storey site, and that means 100 per cent more parking space, so they really do value single storeys. Only one big multi-storey factory has been built in recent years, I was told.

**Mr. Denis Bowman** [*A*]: Such a brilliant paper as we have had this evening calls for a host of questions and comments. But I shall have to confine myself to a few of them and to tackle the author afterwards about the others.

Mr. Anderson mentioned one point which Mr. Allen failed to answer. 'How do the large factory builders in America reconcile their practice with their professional ethics?' Giffels and Vallet are engineers, although they have an architect as a partner. They do not charge 6 per cent. Their employees punch a time-clock, and they charge up on a cost plus basis to the client.

As regards the desirability of single-storey factories, America is a very large country. Over here we cannot stake out an enormous site several square miles in area and put a large plant there. We are forced to have multi-storey buildings.

Flexibility is generally much more difficult with multi-storey factories. One cannot add bits here and there although mechanical handling is often simplified, especially in those types of industry which produce packaged goods. One factory with which I am concerned is planned round mechanical handling on a multi-storey basis; the stanchions and transverse beams are spaced at 12 ft. 6 in. centres because this is the distance required for a conveyor at a slope of 1 : 4 to pass through one floor level to the next. The 12 ft. 6 in. span between the main beams is filled with pre-cast concrete units each 12 ft. 6 in. long; when a new conveyor is required two or three of these units can be taken out to provide the necessary hole in the floor, and the units can be just as easily replaced.

Mr. Allen spoke of the pros and cons of ceiling distribution of electricity and other services. We find that the ceiling is the best place for electricity distribution and air conditioning. Other services should go in ducts in the floor—gas piping, steam, water, and possibly compressed air.

With reference to the Hervey Rhodes woollen mill, of which Mr. Allen showed a fine colour photograph, I should say how grateful we were to him and his colleagues for their advice on colour in this job. In case any of you should be apprehensive about the wisdom of painting a factory in light colours I can tell you that the white stanchions are kept perfectly clean although the operatives have a lot of oil and grease on their machinery; whenever they stick an oily finger or hand on the white paint they wipe off the mark immediately because it is so noticeable. If the stanchions were dark green, brown or black the dirt would not be so noticeable and consequently would not be removed.

**Mr. Allen:** I agree with much of what Mr. Bowman has said. We have to break new ground ourselves for multi-storey design. I should like to see the right kind of attempt to break it at a high expert level. Whether taxation conditions would permit of the right kind of development and organisation, I cannot say. I am told it is difficult to create sizeable design firms which can keep their data so effectively that they can learn and build up efficiency as a firm, continuing to do better and better technical work. That, it seems to me, may offer a problem. Obviously we shall not be able to build as much single-storey work as the Americans.

The speaker says the Hervey Rhodes factory is still clean. I am very glad to hear it. I have not been there for a long time. But my impression is that the Hertfordshire schools are still clean also, and they are often painted white down to the floor. One of our rediscoveries is that by and large good architecture produces the good effect we expect from it. That is what gives one so much confidence in tackling colour problems. The Americans did not believe me when I said we painted things white in factories. My colleague Mr. Gloag was responsible for the Rhodes mill colouring.

I have failed to deal with two of Mr. Anderson's points. The Americans are certainly thinking in general strategic terms—dispersal, alternative supply of power, and black-out. As I said, the American coastal black-out factories convinced them that this was an economic course to pursue, and that if factories were daylighted it must be regarded as a luxury.

As to the professional integrity of architects, I do not think many of those working in the firms in question come into the sales side in the ordinary course of events, nor do they get caught up in it. I spoke of fierce competition in general, but it is more indirect—trying to be as good as the other chap. They do not go out to get jobs, although they have well-established clients and contacts. I did not form the impression that the level of professional integrity was low. I do not think these people could afford it. The part architects play in engineering is very interesting.

**Mr. L. Landon Goodman, B.Sc.(Eng.), A.M.I.Mech.E., A.M.I.E.E.:** One of the most important parts of Mr. Allen's paper was his last few words about the necessity for studies of industrial technologies. I consider this to be absolutely vital. Research should be going on in our universities, and lecturers would then be available for the technical colleges. At the moment, there is no co-ordination between the various branches of the profession dealing with industry.

We have heard a lot about mechanical handling. Mechanical handling is a very small branch of materials handling. Materials handling is the study of the movement of material throughout any establishment. It comprises mechanical handling, labour aids, product design, factory layout and materials processing.

Mr. Allen said that industry consists of the processing and assembly of materials. With due respect, I differ. Industry does not consist of processing and assembling materials. The latter is a form of processing. If he had said processing *and* handling then I would agree with him. Materials handling is by far the most important technology today for all the emphasis has been on machinery and machine design in the past. A few months ago at the Machine Tool Exhibition could be seen many machines which had to be fed by hand. The Americans have gone a long way towards automation as it is called.

Adaptability and standardisation are good up to a point, but in the Caterpillar plant by Giffels and Vallet large diesel

tractors are handled entirely on roller conveyors. Therefore, as I see it, putting in trusses in addition that can carry several tons is futile. I like to look on the design of the building as a covering for the materials handling and processing systems—nothing else.

The increase in space utilisation through palletisation gives great benefits. There are stacker cranes for use with pallets but generally the fork truck is used. In certain cases a stacker crane may be the answer.

As regards cleaning lighting fittings, fork trucks are being used in some factories.

Horizontal transport is not always better than vertical transport. Chain conveyors can travel vertically as well as horizontally. This depends of course on the load. In some cases the multi-storey factory is a better type for certain work. If a factory could be built on a hillside then all the material could flow down by gravity.

I am in favour of the totally enclosed factory. I know one factory that has large areas of glass. Towards the end of a hot spell they are feverishly covering the glass with a green wash. Then it rains. After that they have another hot spell.

It is interesting that workers on some assembly lines in America are too old at thirty-five. After they reach thirty-five years of age other work has to be found for them, in general.

**Mr. Allen:** I am extremely interested in Mr. Landon Goodman's remarks. My classification of industry was not intended to be complete but rather to suggest the scale of events. I agree with much of what he said, but I have time only to pick out a few points that I would question.

He says there is no point in heavy trusses. Up to a point I agree that one cannot go the whole hog and provide adaptability in all directions. If emphasis is laid on one kind of internal transport, another might have to suffer. In the Caterpillar plant I doubt if Giffels and Vallet made no provision for hung loads merely because roller conveyors were to be used. That is my impression, at least; I did not see the plant.

I must make clear one point about which I was misunderstood. I did not say horizontal transport was necessarily better than vertical transport but that the claim was it had been better developed at the present time by the American transport people.

I have seen fork trucks with extensions for cleaning fittings. One of the difficulties seems to be that of getting them round a factory with a high density of machine population and getting them into the right places. It would work in some cases but not, I think, in 100 per cent. I should like to see some way of getting overhead like the arrangement in Mr. Gibberd's factory at Scunthorpe for cleaning glass.

**Mr. J. T. L. Homewood, B.Sc., A.M.I. Mech.E.:** Mr. Allen's review is very stimulating. When you go to America—I was there recently on a productivity team—you tend to see the stars. He has told us a lot about walls, structure and roofs but not very much about floors.

Not many of us will be lucky enough to get a new factory tomorrow or in five or seven months, and we cannot pull down the walls or take off the roof. But we can renew the floors. The striking feature of American buildings, old and new, to an engineer and a factory manager, rather than an architect, is the quality of their finish and above all the quality of the finish of their floors.

The fork lift truck demands a good floor surface. Perhaps Mr. Allen could tell us whether in his opinion the Americans have achieved a better range of finishes for floors which enables them to achieve the standard seen by the visitor at twenty or thirty plants of all ages. It seems to surpass the standards achieved in this country.

**Mr. Allen:** I heard about three general classes of floor only—the wood block, 2 in. to 2½ in. thick, grain on edge—the high grade concrete screed, and the present experimental use of asphalt tiles. These are the only ones I was told about by the designers as being met with in factories. I am relying a great deal on the views of designers. I could not visit more than twenty or thirty factories and the right way seemed to be to go to the designers, who can give generalised information.

I was struck by the high quality of the concrete screed they obtained with specialised plant. I believe the building productivity team always hoped to encounter the remarkable floor-laying technique in action but never quite caught it at the right moment. It was always about to start or had just finished! I came entirely by accident and without intent upon one of the specialist firms in action. The technique was this: the sub-floor was scrubbed with water and with a very special stiff wire brush, shortly after the concrete was laid, and aggregate was exposed to a depth of at least 1¼ to 1½ in., to such an extent that it was uncomfortable to walk across it in ordinary shoes. Three or four weeks later a well-graded and very carefully prepared mix was put down. In order to get it dry quickly it was levelled off true by metal rules and an ingenious technique was employed which I have not seen used in this country. They put down great canvas sheets and spread a coat of dry cement 1 in. thick over the whole thing. This takes out the moisture in no time, and 20 minutes later they take it off and put it on one side to go into the next mix. Then they go over it, 20 minutes after the laying of the concrete, with heavy consolidators weighing several hundredweights and finish it off. This gave an incredibly hard and very durable floor, so far as I could judge, although I am not an expert.

**Mr. E. D. Mills** [*F*]: I have been informed that the key to good quality concrete floors in American factories is that they use an extremely low water content for their screed and compact it mechanically. I believe one firm in this country is producing a mechanical compactor which, it is claimed, will produce floors of equal durability to the American floors.

It has already been pointed out that we cannot have big single-storey factories covering a big area, on account of shortage of space. It is probably equally true that our industrial units are much smaller and do not warrant it. Factories of the order of 20,000 employees are very unusual and according to the Board of Trade figures the average factory in this country employs 1½ or some such absurd number of persons. In point of fact, most of the factories are extremely small and have a very small labour force producing very small units.

I was interested to hear from Mr. Allen's remarks about his slides that the Ford foundry cleaned their air as it came in, having dirtied it themselves as it went out. I should like to know whether the problem of effluent arises. It is a very serious problem in many factories here and I should like to know whether the American factories have got over it.

Mr. Allen referred to canteens in tunnels under the buildings or suspended under the roof trusses. I have always felt they should be apart from the rest of the factory so that people could enjoy a change of surroundings for a short time during their period in the factory.

Finally, I was delighted to hear that we are well in advance in colour and artificial lighting. I hope we shall continue to be. The fact that we are in that position is largely to be laid to the credit of Mr. Allen.

**Mr. Allen:** With so many flooring experts at BRS I did not dare to say much! I believe the key is low water content and a very carefully graded mix. The water content is rather lower, I believe, than is usually used by people who like to get things in place easily.

On the size of industrial units, there are two points. The big 20,000 person unit is still unusual in America. I believe a number of firms in Manchester have 25,000 or more. I always considered that to be strategically unwise in the last war, but what it would be like in the next, I would not like to say. Perhaps it is of no consequence now.

I asked whether the American standardised construction was being used in the smaller factories, and they said it was. The fact that they can get trusses off the peg up to 80 ft. is of great advantage in the construction of the small factory, and they rely substantially on natural agencies.

I felt it was beyond my capacity to ask any more questions and I omitted effluents entirely, so I can give you no information.

Perhaps I have created the impression that the cafeterias are rather bad. They are, in fact, very good. The idea of putting them in roof trusses has not gone very far. Where it is done in a monitor, they can extend on to the roof for relaxation and get a view. On the whole, they tend to be near the office block where they can be reached easily. They like a view. They create pleasant conditions and they try to serve their food pleasantly and package it nicely.

**The Chairman:** Mr. Allen asks me to say in conclusion that if there are any other questions, he will be glad to see that they are answered through the JOURNAL if you will send them in in writing.

*The following note on Mr. Allen's paper has been received from Mr. H. G. Jamieson, M.A., A.M.I.Mech.E., M.I.H.V.E., of G. N. Haden & Sons Ltd.*

I had a discussion with Kahns in Detroit about two years ago on their methods of heating and ventilating factories and I would like to make some comments on what Mr. Allen has told us of the modern American factory from the point of view of the heating and ventilating engineer.

There is no doubt that the central heating-ventilating plants of which the Americans make such wide use are in large units as compared with British practice. The standard fan set-up as used by Giffels & Vallet of 78,750 c.f.m. capacity would deal with about 65,000 sq. ft. of factory floor area and have a heat output of nearly 4 million B.Th.U./hr. corresponding to a requirement of 2 million B.Th.U./hr. in British weather conditions. The advantages in using these large plants are clearly stated in the paper. An additional advantage not mentioned is the fact that expensive temperature and humidity controls are more justified on big plants than on small ones.

Now there are two reasons mainly why American engineers are able to use such large plants and both are outside the control of the heating and ventilating designer. The first is that the American architects provide plant room of adequate size and reasonable accessibility above truss level. The second and more important is that the American heating engineer is able to take the air away from the heating-ventilating unit in metal ducts, to distribute it over the appropriate area of the factory and to discharge it in reasonably small quantities from the air outlets. The reason he can do this is the uniform height of 6 to 8 ft. over the whole area of the factory above truss level which, obstructed only by the trusses, allows ducts to be run at will without interfering with natural daylighting. This is a tremendous advantage.

As a contrast the British heating engineer normally cannot get a distribution of air ducts above truss level. The north light roof in use in this country too often occupies the whole space of the roof from ridge to truss level and forms an insuperable and impenetrable barrier to air distribution above truss level. Accordingly the British heating engineer normally has to rely on large heating-ventilating units at the sides of the shop blowing air over distances of 100 ft. or so over the heads of the occupants and machinery. This limits him to units with heat outputs of about ¾ million B.Th.U./hr. and to having to distribute his heat and provide his air movement with large volumes of air discharged direct from the heater outlets which are always difficult to control. The British installation is cheaper but not so satisfactory.

British practice has not got as far as providing plant rooms for the heating-ventilating units or even, in many cases, access to them.

There has been a recent tendency in this country when using these large unit heaters to raise them off the floor and fix them on steelwork at mezzanine level and in some cases to provide them with access and platforms for maintenance, which they really require. On one particular job, it was interesting to notice that when these platforms were suggested in the design stage, they were at once extended to accommodate electrical switchgear and distribution gear. This is an interesting move in the direction of American practice.

Mr. Allen did not specifically mention the piped services in a factory. There will always be hot water or steam pipes for heating and very often cooling water, compressed air and gas. They are more difficult to run than electric cables because they cannot easily jump up and down, otherwise the same considerations in running electric power apply to piped services. But here again the clear space above the roof trusses is a very great advantage.

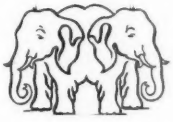
To sum up, the American factory, with its flat roof, enables the heating, ventilating and piping services to be provided much more effectively, and adds considerably to its adaptability.

On the question of extract ventilation, I believe it is the general rule in America to do this mechanically. I do not think natural extract ventilators are at all in common use.

Kahns told me that where capital cost demanded it they abandoned large central heating-ventilating plants and instead installed downward discharge unit heaters with fresh air inlets through the roof and recirculated air connections from under the roof. This is a practice with which we are familiar in this country, but I observe that Kahns took considerably more care to control these units thermostatically and also the proportions of fresh and recirculated air handled.

The saving in capital costs of these small individual units is at the expense of increased difficulties of maintenance, both of plant and controls, a less satisfactory distribution of heat and air movement and inability to provide filtration, cooling or humidification. I do not know how often this lower standard of plant is used in America.

I am glad Mr. Allen has mentioned the importance given to proper air movement in summer. Good air movement does more than anything to make factory working conditions tolerable and in general far too little attention is paid to it. An alternative to the method suggested in the paper, namely, that of adjusting the air outlets in summer and winter, is the use of the two-speed fan and motor to give higher rates of air handled in the summer and consequently greater air movement in the factory. It is simpler to operate a fan starter than adjust a number of air outlets.



# Practice Notes

Edited by Charles Woodward [*A*]

**IN PARLIAMENT. Building Contractors. (Payments.)** Asked if he would circularise local authorities indicating the desirability of making prompt payments to builders engaged on public contracts, the Parliamentary Secretary to the Ministry of Housing and Local Government replied: I am sending the Hon. Member a copy of a circular issued to local authorities in April last. Asked further whether the Minister could not give figures to show how far behind some of these authorities are, the Parliamentary Secretary replied: No, sir, there are no figures available, but there is no reason why any payments should be behind. I hope that publicity can be given to this answer because the moneys due from time to time under the contract should be paid promptly and certainly within the period named in the contract. Those were the instructions contained in the circular, and local authorities should obey them in the interests of efficiency. (20 January 1953.)

(*Note.* The circular referred to was published in the JOURNAL for May last at page 259.)

**Houses (Selling Price).** Asked his intentions regarding the selling price of houses at present controlled by the Building Materials and Housing Act, 1945, and Section 43 of the Housing Act, 1949, the Parliamentary Secretary to the Ministry of Housing and Local Government replied: My right hon. Friend hopes to make an announcement later in the Session. (20 January 1953.)

**Building Costs.** Asked whether he has noted that the proportion of building cost attributable to wages has been falling since 1947, but the cost attributable to materials has been increasing; the cause of the rise in the cost of materials; and what plans he has for checking it, the Minister of Works replied: The percentage increase in the cost of building materials since 1947 is less than the corresponding increase in earnings of building workers. In the past year wages have risen, but the price index of building materials has declined from 135 to 130. Labour costs have, nevertheless, fallen in relation to material costs partly because productivity is improving and partly because there has been a transfer from maintenance to new construction where more materials are used per man hour. (20 January 1953.)

**Belgian Bricks.** Asked how many million bricks were imported from Belgium by Scottish local authorities from October 1951 to December 1952; and what was the cost to the local authorities concerned, the Secretary of State for Scotland replied: I am informed that during the period in question 10·9 million bricks were imported from Belgium into Scotland for use on housing work. The prices delivered to sites ranged from 235*s.* to 272*s.* per 1,000

according to the quantities and the areas concerned. (20 January 1953.)

**Historic Buildings (Preservation).** Asked what he estimated would be the annual loss of revenue if the recommendations of the Gowers Report on Historic Buildings were fully implemented, the Chancellor of the Exchequer replied: On the assumption made in the Report that about 2,000 properties would be affected, the annual loss of revenue would be about £10 million. (20 January 1953.)

**London Builders' Conference.** Asked whether he would make a statement on his reply to the request of the County Councils Association for joint consultation with him on the question of the part played by builders' conferences in connection with tendering and contracting procedure, the Minister of Works replied: Bodies representative of the building industry, under the leadership of the Royal Institute of British Architects, are about to embark upon a review of the tendering and contracting procedure in the industry. This review is not intended to be an inquisition into the activities of the builders' conferences, but no doubt account will be taken of the measures which they adopted to meet a real problem. I understand that the Royal Institute of British Architects have already been in contact with the County Councils Association in connection with the review.

Asked further whether he was aware that the county councils are very concerned at the revelations made in the debate initiated by the Member for Faversham (Mr. P. Wells), that they offered to meet the Minister, that they have advice and information to give him on this important matter and it is right that he should consult them as well as the builders and architects of the country, the Minister replied: I shall be very glad to hear what they have to say. Asked further whether he could assure the House that he himself had not grown lukewarm over this matter since it was first raised in this House, the Minister replied: Yes, Sir.

Asked further why he did not refer the arrangements of the London Building Conference to the Monopolies Commission or to an investigation of a judicial or quasi-judicial nature, the Minister replied: The review to be undertaken by the industry itself will cover a wider field than the activities of the London Builders' Conference and I had hoped that a special investigation of the activities of the Conference would not be necessary. I am, however, prepared to recommend reference to the Monopolies Commission or some other appropriate body, if that will assist the general review, and I am consulting my right hon. Friend the President of the Board of Trade on the suitability of a reference to the Commission. (27 January 1953.)

**Government Buildings Overseas (Architects).** Asked what principles guide him in his choice of an architect when he has decided to build a new British embassy or legation in a foreign capital, or extensively rebuild existing premises, the Minister of Works replied: The choice of an architect for a Government building overseas is determined by local conditions, such as climate and architectural tradition, and by the experience and talent available within the Ministry and outside. The aim in each case is to select an architect specially qualified to carry out the work, and the choice may fall on a Ministry of Works architect or on an architect in private practice either in this country or locally. (4 February, 1953.)

**WAR DAMAGE PAYMENTS.** The War Damage Commission paid out £57 million during 1952, the average weekly rate of payments in the last quarter being £914,000.

Value payments amounted to nearly £9 million, of which £2 million related to houses.

Total war damage payments by the Commission now amount to £1,077 million in 4,520,000 separate payments. Contributions by property owners during and after the war amounted to nearly £200 million. (Press Notice 12 January 1953.)

**CENTRAL LAND BOARD. Revised Set-Off Arrangements.** It was announced last May that when a developer is the beneficial owner of a claim under Part VI of the Town and Country Planning Act, 1947 (or Part V of the Scottish Act), the value of which has been determined, the Central Land Board would accept an amount not exceeding 80 per cent of its face value as security for the payment of any development charge due from the developer.

In the light of the Town and Country Planning Bill, 1952, the Board have now been authorised to accept 100 per cent of the value of a claim as security for payment of charge* where the claim is in respect of the land developed. Where the claim is in respect of other land they will continue to allow up to 80 per cent as security, provided the claim was originally made by the developer or passed to him by operation of law or by virtue of an assignment made (or an assignation granted) before 18 November 1952 and notified to the Board by 31 December 1952.

The Board cannot make any repayments to developers who have paid a balance of development charge after giving 80 per cent of their claim as security. (Press Notice, 9 January 1953. CLB/48.)

**NATIONAL JOINT COUNCIL FOR THE BUILDING INDUSTRY.** At their Statutory meeting on 14 January last, the National Joint Council found that an increase of 2*d.* per hour in wages becomes due to operate as from 2 February, in accordance with the Sliding Scale based on the Retail Prices Index. (16 January 1953.)

*New Rates (Per Hour)*

| | Craftsmen | | Labourers | |
|---|---|---|---|---|
| | *s.* | *d.* | *s.* | *d.* |
| London (within 12 miles circle) | 3 | 8 | 3 | 2½ |
| London (12–15 miles) | 3 | 7½ | 3 | 2 |
| Grade 'A' Districts | 3 | 6½ | 3 | 1 |
| Grade 'A1' Districts | 3 | 6 | 3 | 0½ |
| Grade 'A2' Districts | 3 | 5½ | 3 | 0 |
| Grade 'A3' Districts | 3 | 5 | 2 | 11½ |
| Liverpool Special | 3 | 8 | 3 | 2½ |

**MINISTRY OF HOUSING AND LOCAL GOVERNMENT. Lower Prices for Non-traditional Houses.** Mr. Harold Macmillan, Minister of Housing and Local Government, in a circular to all Housing Authorities in England, points out that the list prices of a number of non-traditional types of houses were reduced from yesterday (1 February).

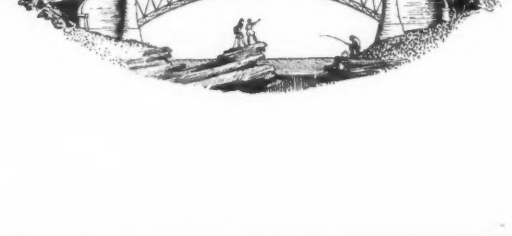
He says that the results of a previous circular asking local authorities to make more use of the new methods of building houses—methods which result in quicker completions with fewer man hours—have been most encouraging. In each of the three months August, October and November last the number of non-traditional houses in tenders approved was three times the corresponding figure in 1951. In September the increase was 50 per cent.

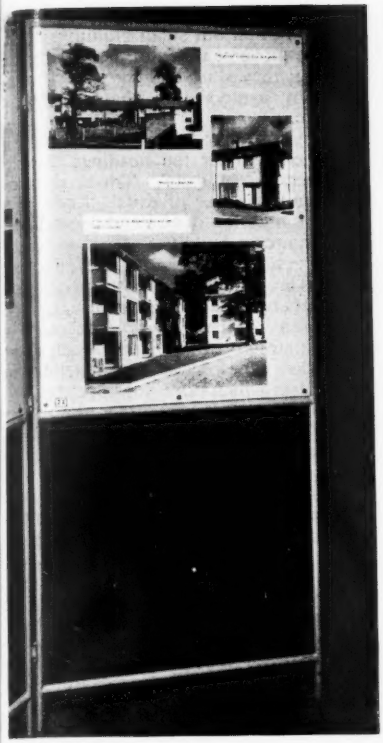
'The Minister hopes that the lower prices will encourage local authorities to put more of their current programmes into non-traditional houses', the circular adds. 'He asks in particular that local authorities in areas likely to suffer from shortages of traditional materials or skilled building labour will take full advantage of the alternative that non-traditional methods provide.'

The reductions, varying between about £40 and £80 (with further reductions for continuity orders) according to type and the area in which the houses are to be built, are due to changes in the price of building materials and economies resulting from the increased production of these houses last year. (2 February 1953. No. 1.) (Circular 6/53.)

**An amusing Dilemma.** THE JOURNAL OF PLANNING LAW for February contains the following note: 'Much innocent pleasure has been given to many by the discovery, more than half-way through a long inquiry into a development plan, by leading counsel for the local planning authority, that a projected road ran through his own back garden. An application for leave to object out of time was promptly made.'

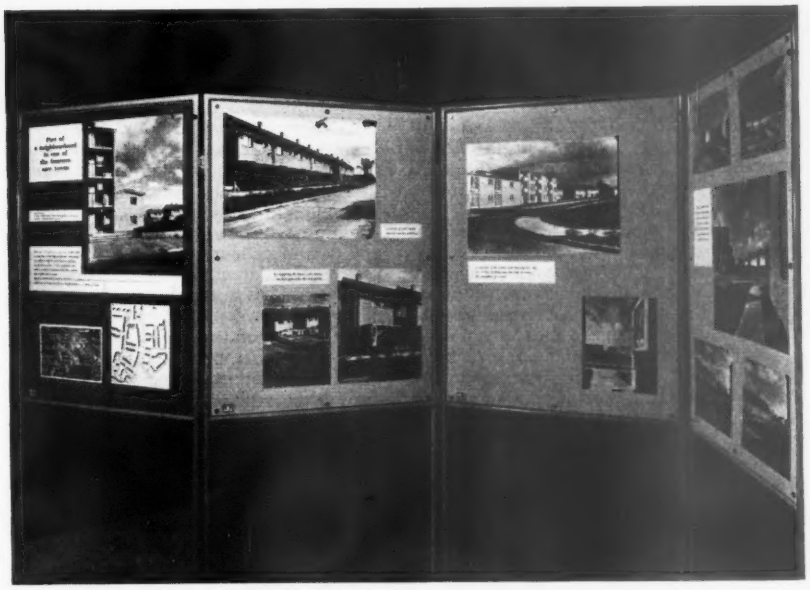
* This refers to development charge which is payable because the development started before 18 November 1952 or was included in a determination of development charge or an application for determination with other development begun before that date.





A typical screen

The exhibition erected in the Aston Webb room at the R.I.B.A.



A group of screens showing the hinged hook-joints

# R.I.B.A. Exhibition

## 'The Architect and You'

The first in this series of travelling exhibitions, entitled 'Home and Surroundings', will be on view at the R.I.B.A. after we go to press. The Minister of Housing and Local Government, the Rt. Hon. Harold Macmillan, M.P., is opening it on 18 February. Its first showing on tour will be in a Birmingham department store from 14 to 27 March under the auspices of the Birmingham and Five Counties Architectural Association.

The exhibition, of which we show three views, consists of 30 screens on 15 double-sided interlocking and self-supporting frames which are set up as a short spine with four wings. Thus the exhibition can be shown in any room about 30 ft. by 20 ft. without any difficulties of wall fixing or local provision of framing. The frames are of stove-enamelled tubular steel. All the 'hanging' necessary is to lift the frames and panels out of their travelling cases and fasten them together in their numbered order. Copies of a poster are being supplied; this has a white panel on which can be overprinted local information about the places, dates and times of showing.

The first section begins with a short historical section entitled 'What the architect has done for us' and then continues with 'The architect's client' in history—the king, bishop, aristocrat, industrialist and professional man down to 1900. Then a separate panel is devoted to 'The architect's client of today' which, in housing, is the whole nation. After illustrating the kinds of people for whom architects design homes—young families, adult families, old people, etc.—there is a panel summing up the preceding panels and explaining in simple terms the meaning of 'density'.

Thereafter the exhibition proceeds to illustrate examples of good design and planning to different densities with Churchill Gardens, Pimlico, at 200 persons per acre, Somerford Grove, Hackney, at 100 persons and Roe Green, Hatfield New Town, at 50 persons. After that comes rural housing with examples from Norfolk, Hertfordshire, Wiltshire, Scotland, Oxfordshire, Worcestershire and Northumberland. Then there is a section on landscape setting in various types of urban and rural areas. The 'village green' effect in open spaces, the preservation of trees, the use of good old buildings for community purposes, site planning for safety, quiet and good aspect are all illustrated.

Already about 55 bodies, mostly Allied Societies, have asked to have the exhibition. Requests continue to come in and the question of duplicating the exhibition is being considered. The next exhibition in the series will deal more particularly with the individual dwelling.

# Review of Construction and Materials

*This section gives technical and general information. The following bodies deal with specialised branches of research and will willingly answer inquiries.*

*The Director, The Building Research Station, Garston, near Watford, Herts.*
*Telephone: Garston* 2246.

*The Officer-in-charge, The Building Research Station Scottish Laboratory, Thorntonhall, near Glasgow.*
*Telephone: Busby* 1171.

*The Director, The Forest Products Research Laboratory, Princes Risborough, Bucks.*
*Telephone: Princes Risborough* 101.

*The Director, The British Standards Institution,* 28 *Victoria Street, Westminster, S.W.*1.
*Telephone: Abbey* 3333.

*The Director, The Building Centre,* 26 *Store Street, Tottenham Court Road, London, W.C.*1.
*Telephone: Museum* 5400 (10 *lines*).

*The Director, The Scottish Building Centre,* 425–7 *Sauchiehall Street, Glasgow, C.*2.
*Telephone: Douglas* 0372.

**Fire Grading of Buildings Parts II, III and IV.** The publication of Post War Building Studies No. 29 (H.M.S.O., 4*s.* 6*d.*) concludes the work of the Joint Committee on Fire Grading of Buildings. Part I, which dealt with 'General Principles and Structural Precautions', was published as Post War Building Studies No. 20. In this new volume Part II deals with fire-fighting equipment, Part III with 'personal safety', and Part IV with chimneys and flues. By far the largest and most important is Part III, which covers in a most thorough manner the subject commonly known as 'means of escape' but which, because it deals with the basic factors of hazard governing the need for escape, has rightly been given the more embracing title of 'personal safety'.

Considering first Part II we find that it provides much useful data on access facilities for fire engines and escapes—a matter of increasing importance now that buildings are less commonly built up to paved street frontages than they were. There are also statements of principles governing the provision of automatic fire detection devices, warning systems and automatic extinguishing equipment.

In Part IV chimneys and flues are considered solely from the point of view of their liability to create risk of an outbreak of fire in the building, the Committee stating that such matters as strength, stability and flow-efficiency are outside their scope. Reading between the lines one concludes that there is little wrong with the brickwork chimney and hearth that are properly constructed according to building bye-laws, but things are not so safe with some prefabricated designs. Under the heading 'Durability' the Committee point out that a flue material which may be resistant to high temperature for a short while or even over a comparatively long period, may be susceptible to abrasion from regular cleaning, to disintegration or corrosion by the chemical constituents of flue gases or to cracking or spalling caused by heat shock. In short, the ordinary flue has a hard life and it should be able to endure it indefinitely.

Part III is the thorough study of the whole problem of escape which has so long been needed. Hitherto this subject has been the sport of somewhat haphazard laws and bye-laws (except perhaps in the L.C.C. area) and there has been little basic technical study on which the laws and bye-laws ought properly to be based. Unfortunately the subject lends itself hardly at all to true scientific analysis because it is governed by a complex of factors of which the unpredictable nature of human behaviour or crowd psychology is but one. The best that can be done is for a representative committee of experts to study all the available information and to draw their own conclusions and that is exactly how Part III came to be written. It is likely that neither the ordinary man nor another expert will find much to cavil at in the conclusions of this committee. It is clear also that the committee has paid attention to practicability and economy in formulating what are, in effect, standards of safety of human life against fire in buildings.

A short review such as this cannot do more than mention a few salient points; unfortunately, there is no substitute for reading the report if one wishes to grasp the subject entirely. A first point that calls for mention is the recommended primary grouping of building types based on their population characteristics. Group A consists of 'assembly buildings', i.e. those containing crowds where panic is a major consideration. Group B consists of trade, commercial and industrial buildings; in these the occupants are alert and able-bodied and may be amenable to discipline. Group C consists of residential and institutional buildings; these have a 'sleeping' risk, a term also covering infirm persons or prisoners; with these the time needed for escape is obviously greater than in Group B buildings. Each of these three groups presents its own special problems.

Population densities are closely studied because on them depends the numbers, capacities and planning of exits. Density also influences panic; 300 persons in a small hall are more prone to panic than 300 persons in, say, an aircraft assembly shop.

Under the heading 'construction' the committee point out the added dangers from the recent introduction of combustible wall and ceiling linings. They also emphasise strongly the need for fire doors and smoke stop doors at staircases and in corridors in all but small buildings to prevent the movement of hot gases within the building; they state that more persons are killed by asphyxiation than by contact with fire.

Means of escape proper is discussed in great detail under the headings 'Number and location of exits', 'Travel distance', 'Minimum number of exits', 'Location of exits', 'Limitation of size and occupancy of single-staircase buildings', 'Exit width' and 'Construction of means of escape'. These sections are perhaps the most important for architects because they are a very thorough discussion of the factors that ought to govern planning of escapes and each section concludes with precise recommendations. A problem which does not appear to have been studied elsewhere other than superficially and which is here thoroughly investigated is that of the simultaneous discharge of persons from several storeys at once into a common escape stair. The committee are also strongly in favour of protecting escape staircases by enclosing them. They list the defects of the external escape staircase and give only a modified approval of their use where enclosed staircases are impracticable.

The report concludes with two addenda to Part I (Post War Building Studies No. 20) dealing with wood shingles and transparent plastics respectively. While not disapproving the former, the committee recommend restriction of their use to isolated buildings, which they define. As regards the latter, the committee note that the transparent plastics at present available are combustible and, after seeing some tests, they say they cannot recommend their use in any circumstances on the roofs of buildings nor as an alternative to glass in windows. Their special hazard is stated to be the falling of molten and flaming drops within the building.

The report is of course not mandatory, but it should serve as a guide to regulation-making authorities and thus tend towards uniformity. Moreover, where existing requirements are 'at the discretion of the authority', the report should be useful in settling any points of dispute between architect and authority.

**More Catalogia.** In the July 1952 issue the JOURNAL coined the term *Catalogia* to describe trade publications that rise above the usual level of catalogues, either on account of their format or the useful information they contain. The tendency of manufacturing firms to include instructive details gives sterling value to the JOURNAL'S coinage, and we here record two additions to our previous list.

*Progress in Glass.* Messrs. Pilkington Bros. Ltd., of St. Helens, Lancashire, have produced a booklet under the title *Progress in Glass* which includes a selection of illustrations showing the way in which glass played its part in the Festival of Britain 1951. It also briefly describes the largest polished plate glass window in the world, the 50 ft. by 8 ft. window in the Power and Production Pavilion. This well-produced

booklet gives an idea of the uses to which glass can be put and the sizes in which it can be obtained.

*The Use of Mastics in Building*. This is another well-produced booklet describing mastic, where it is required in building, the principal properties it should possess, and method of application. Clear diagrams show the danger-points in building construction where mastic should be used. The booklet is issued by Messrs. Secomastic Ltd., of 15 Upper Grosvenor Street, London, W.1, and while it naturally recommends the firm's product Secomastic the information it contains will be of interest and use to architects.

**Anti-corrosive spraying.** The importance that is attached to the protection of iron and steel from corrosion is shown by the amount of literature that has been produced on the subject, some of it highly technical, but architects who are not very scientifically minded may be content to know about convenient methods of preventing corrosion without having to read too much about the whys and wherefores.

One of the main purposes of an anti-corrosion coating, whatever the applied material may be, is to protect the iron or steel from contact with an inimical atmosphere and so stop rusting, but before any protective covering is put on it is essential that the basic metal should be clean and free from rust. One way of removing rust is by brushing with a wire brush, but although this will clean off loose scale it is not so effective in cases where the basic metal is pitted and rust adheres in the pockets. One of the best methods is to use a 'gun' which will spray the metal with steel grit at high velocity, and if it is found that the grit tends to bounce off the edges of the rust-pits then the cleaning may be finished off by shooting sand, which will get into the pits.

A material that is much used as a protective coating is zinc, and when comparatively large areas are to be covered it can be conveniently applied by means of a 'pistol' which, by compressed air, ejects zinc in powder form through a gas flame that melts the powder, and by this means a uniform coating of zinc may be put on and successive applications will give any desired thickness. The zinc will corrode but will do so 'sacrificially', that is the zinc will sacrifice itself and thus save the iron and steel from rusting. There is a galvanic or electrochemical action involved here, but without going into that it may be said that, within limits, the iron or steel will not rust so long as some zinc is still present. The protective life of the zinc therefore depends on the thickness of the coating or, as some authorities prefer to say, on its weight, regardless of the particular method by which it is applied.

The shot-blasting gives a roughened surface which forms a good key for the zinc coating, and as the bond between the two metals is principally a mechanical one the coating will bear a considerable amount of rough usage without chipping or flaking. As a sprayed coating is slightly porous it is usually painted as an added protection, but it is important to use the right primer; an acidic or lead-based paint should not be used; a zinc chromate primer is recommended.

Other anti-corrosion metals that may be sprayed are tin, lead and aluminium, while for certain purposes plastics may be used, including polythene, thiokol, shellac, bitumen and araldite. Others are also being considered.

The interiors of the hot water storage cylinders in the basement of the R.I.B.A. building have been 'shot' and zinc-sprayed; they were originally galvanised by the hot-dip process but became rust-pitted. Protective measures taken did not prove completely successful and Messrs. Schori Metallising Process Ltd. were called in; they advised and carried out the shooting and spraying. Those who wish to go more deeply into the subject should apply to the firm for their technical literature, as they are one of the organisations who have specialised in the subject in all its branches. Their address is Brent Crescent, North Circular Road, London, N.W.10.

**The heating of panels by flue pipes.** In the June 1952 JOURNAL mention was made of the Fire Research Special Report No. 1, on the heating of panels by flue pipes. Under the same title the Fire Protection Association have published their Technical Booklet No. 13 in which they report the result of investigations into the surface temperatures of flue pipes. Tests were made with an openable stove without a boiler, the flue arrangements being of four kinds: (1) a chimney made up of 6 in. diameter sheet metal pipe 20 S.W.G.; (2) the same but encased in a sheet metal pipe 8 in. diameter, the space between being open at both ends; (3) as for (2) but the space closed at both ends; and (4) a chimney made up of 8 in. diameter cast iron pipe 0·25 in. thick.

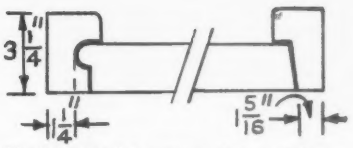
Where the flue pipe was encased there was not much difference in the effect of a ventilated or of an unventilated space, the highest flue pipe temperature when the space was ventilated being 1,720° F, and 1,700° F when it was not ventilated. This may possibly be of interest in considering the question of open or closed cavity walls.

The address of the Fire Protection Association is 84 Queen Street, London, E.C.4.

**British Standards and Model Bye-laws.** A suggestion has been made to the British Standards Institution that all the British Standards and Codes of Practice referred to in Model Bye-laws, Series IV, Buildings, should be collated in one volume, but as there are 75 of them the cost would be prohibitive; also, the loose-leaf form is more convenient as many of the B.Ss. are revised from time to time.

However, the B.S.I. are prepared to issue one copy of each of the documents at the special price of £7 7*s*. instead of the total published price of £12.

Application should be made to the B.S.I. at 24 Victoria Street, London, S.W.1.



The Lindoco 1-hour type door and frame

**Lindoco Fire-check Doors.** Two fire-check doors, complete with frames, have been introduced by Messrs. Linden Doors, Limited. The first complies with the requirements for half-hour fire resistance and also for a half-hour fire check door. The door is 1¾ in. finished thickness and has a Stramit core infilling between plywood faces. The frame is 3½ in. by 2½ in. nominal in softwood, the contact surfaces between door and frame being treated with Albi-R retardant coating, which was described in the September 1952 JOURNAL.

The other type is designed as a one-hour fire-check door, and is 2¼ in. finished thickness, the core being Stramit but in this type the two faces are 18 gauge metal sheets either of sheet steel or aluminium; the softwood frame being of the same overall size as for the half-hour type. In this case the frame and the contact surfaces are treated with Albi-R paint. The accompanying illustration shows a section through the door and frame of the one-hour type and is of interest; a provisional patent has been registered. The doors may be purchased without the frames and in that case they are supplied with square edges. The Stramit core is helpful in providing sound insulation and absorption.

The doors and frames are made by Messrs. Linden Doors, Limited, of Cowley Peachey, Uxbridge, Middlesex.

**A new Ideal boiler.** Messrs. Ideal Boilers and Radiators Ltd. have produced a new model of their boilers which is thermostatically regulated, a simple control allowing the temperature of the water supply to be controlled and thus there is economy of fuel. The model is called the Ideal Autocrat domestic boiler. For hot water supply only the boiler will heat 40 to 50 gallons per hour according to the maximum temperature desired, or it will heat 110 sq. ft. direct radiation if heating only is required. The present price is £33 complete with thermostatic control. The address of the firm is Ideal House, Great Marlborough Street, London, W.1.

**Standard method of measurement for Prestressed Concrete.** The Standing Joint Committee for the Standard Method of Measurement of Building Works have produced a supplement (IV edition), being an addendum to Section IV Concretor; it deals with prestressed concrete. In view of the increasing use of prestressed concrete it has been thought desirable to publish this supplement instead of waiting for the issue of a new edition. The document may be obtained from the Royal Institution of Chartered Surveyors, 12 Great George Street, London, S.W.1, price 1*s*. post free.

# The Royal College of Art

## Changes in Architectural Teaching

The Council and Principal of the Royal College of Art are closing the School of Architecture at the end of this academic year. Relevant parts of its work will be done by the Department of Interior Design whose Reader, Sir Hugh Casson [*F*], will then become a Professor. In order to preserve the traditional relationship, now a century old, between the College and the architectural profession, a new non-teaching Chair to be known as the Lethaby Chair of Architecture, will be established. Professor Basil Ward [*F*] has been appointed its first occupant and the initial series of lectures which he will deliver will be on 'Lethaby and his Times'.

The Royal College of Art was founded in 1837, its first Principal being John Papworth, who at that time was Vice-President of the Institute of British Architects, then itself only three years old. The foundation was a result of the awakening of interest in industrial art which was sharply separated by pedantic classification from fine art. Classes for instruction in various crafts, aimed at giving artistic training to designers and craftsmen, were held, first at Somerset House, then at Marlborough House. In 1853 the 'Department of Science and Art' was established—a result of the Great Exhibition of 1851—and in 1857 moved to South Kensington where in time it gave birth to the Victoria and Albert Museum. With it moved the College.

As far as is known, the first Chair to be founded at South Kensington was one of architecture and was held by Professor Gottfried Semper. At that time the teaching of architecture no doubt included as much instruction on 'ornament' and design in general as it did on building. None the less, for some years students were trained for the architectural profession and one of the last Gold Medals to be awarded by the College for architecture was gained by Lutyens when a student there.

In the early years of the century, however, the provision of professional training in architecture was discontinued at the College and the work of the School of Architecture limited to giving ancillary training in appreciation to the students of the other schools in the College. In the view of many who hold that students of architecture and of the other arts gain by being trained in the same institution this was a mistake. Further, the College was thus rendered ineligible for the system of 'recognition' established by the R.I.B.A. a few years later. Nevertheless, the imparting of a general knowledge of and training in appreciation of architecture to students in the other arts is a worthy one and has been ably sustained by a line of distinguished professors, including Lethaby, Beresford Pite, Hubert Worthington, A. B. Knapp-Fisher and Basil Ward. But inevitably under such a system architecture became a 'background' subject and thus tended to be looked on by students of other arts as at best a necessary evil in much the same way as architectural students regard such subjects as building law and sanitation, namely, as something that has to be learned but which is essentially a sideline.

Until a few years ago the original purpose of the College, namely to teach 'industrial art', had largely given place to the training of art teachers. This policy was reversed by Mr. Robin Darwin when he became Principal in 1946. He fully recognised the need in industry today of trained designers and he reorganised the College accordingly. The creation of the Department of Interior Design was an important item in the changes made by Mr. Darwin. The new arrangement announced above is perhaps an inevitable result of this policy and one to be commended, however much the ending of a hundred-year-old school with a distinguished history may be regretted.

Since the new Department of Interior Design would inevitably undertake a considerable amount of teaching in certain aspects of architecture, the Council of the College decided to transfer to it the functions hitherto performed by the School of Architecture. On the other hand, any step which might suggest that the Royal College of Art no longer accredited to architecture the basic importance which it had done for over a hundred years was to be deprecated. Accordingly it was decided to create the Lethaby Chair of Architecture which is analogous to the Slade Professorships at Oxford and Cambridge. This would also commemorate one of the greatest former Professors of the College and one who was perhaps the most penetrating and distinguished writer on design of his times. It is appropriate that the first holder of the Chair, Professor Basil Ward [*F*], should take as the subject for his first lectures his great predecessor.

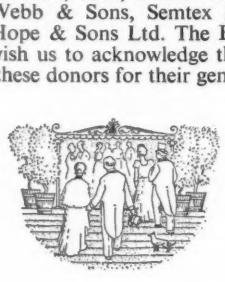
# The Architects' Benevolent Society

The third annual ball in aid of the A.B.S. Centenary Fund was an even greater success than its predecessors. Not only were the numbers of those attending much larger than in the previous year but the magnificent amount of £2,000 was added to the Fund. It will be remembered that the purpose of the Fund is to provide homes for the Society's beneficiaries and the time is drawing near when a start can be made, though the Fund is still a long way from its target of £50,000. Indeed there can be as yet no relaxation of effort to raise money for this worthy cause. That many people realise this is shown by several generous donations recently received. Two of these call for special mention. The Essex, Cambridge and Hertfordshire Society of Architects ran a Christmas draw for the A.B.S. and raised £102 7*s*. to which they added a donation of £25. Rather more original and equally productive was a film show by the Manchester Society of Architects which raised £113 13*s*. 6*d*. This was most ably organised by Mr. J. Gomersall [*L*] who arranged the performance and sale of tickets to members of the Manchester Society of Architects and their friends. It will be remembered that Mr. Gomersall did the same thing last year and raised £75. We might perhaps mention that there is no copyright of this idea!

The sale of Christmas cards by the A.B.S. also proved productive, achieving a profit of £270. It is proposed to repeat the effort this year on a somewhat expanded scale and to sell cards at the Building Exhibition, stand space having been generously offered by Mrs. Molly Montgomery.

The A.B.S. depends for its funds on the continuous support of architects either in giving donations or by organising money-raising activities such as the ball. So many persons helped to make the ball a success that there is not space to mention them all. The Honorary Organiser, Mrs. A. Wolfe [*A*], and the Chairman of the Ball Committee, Mr. C. J. Epril [*F*], should, however, be specially mentioned. The side-show stands were designed and made by students of the Regent Street Polytechnic School of Architecture. The table decorations (subsequently sold) were designed and made by students of the Architectural Association School of Architecture and the Hammersmith School of Building and Arts and Crafts. THE BUILDER provided the services of a cartoonist and an anonymous friend arranged the entertainment by a conjurer. Numerous willing helpers assisted with the side-shows and the prize draw.

Donations, prizes and gifts in kind were presented by Aygee Ltd., W. N. Froy Ltd., W. Heffer & Son, Ltd., Sir Robert McAlpine & Sons, Ltd., Mrs. Molly Montgomery, Norris Warming Co. Ltd., THE OFFICIAL ARCHITECT, Troughton & Young, Ltd., Waygood Otis, Ltd., George H. Smith Ltd., W. S. Barton & Co. Ltd., Percy Bilton Ltd., P. E. Edgar, Esq., John Mowlem & Co. Ltd., Godfrey Neal, Esq., Rowley Brothers Ltd., Harold Samuel, Esq., Taylor Woodrow Construction Ltd., J. C. R. Head, Esq., P. S. Edgson, Esq., Marley Tile Co. Ltd., Wm. Radley & Son, Ltd., Falkus Bros. Ltd., C. T. Webb & Sons, Semtex Ltd., and Henry Hope & Sons Ltd. The Ball Committee wish us to acknowledge their gratitude to these donors for their generosity.



# Book Reviews

**Introductory Soil Mechanics and Foundations,** by *George B.* and *George F. Sowers*, 9¼ in. xi + 284 pp. text illus. New York: Macmillan. [1951] (£1 9*s.*)

This book shows an attractively fresh approach to the problem of simplifying for the reader, in a necessarily limited space, the immense complexity of soil behaviour. The book starts, for example, with a 'cautionary tale' whose description of disaster and financial loss must convince any architect that it would be well to read further! The authors have, too, a pleasantly colloquial style and a command of vivid imagery and metaphor. The undergraduate will appreciate being asked to find the void ratio of a 'chunk' of soil, and the authors' clear and detailed explanation of soil suction and capillarity will remove misconceptions from the minds of many readers.

The chapters deal with the physical properties and geological origins of soils and then proceed to detailed consideration of seepage, foundations, earth pressure, fills and subgrades, and stability. Of these chapters the student will probably find those on the properties and origins of soils of the greatest value. Throughout, the book is illustrated with well-conceived diagrams which carry their message with a 'punch' and which frequently describe an unfamiliar idea more closely than words could do.

The book, although written for an American public, can readily be used by British architects. Sieve numbers, for example, are easily transformed to British equivalents by reference to B.S.410. What is more disturbing is that nearly all the suggested reading is American, and the authors are apparently unaware of the fundamental research work done in Europe in recent years. There is no reference, for example, to the important papers published in GÉOTECHNIQUE or to the authoritative statements of the D.S.I.R. Such omissions may lead to inaccurate conclusions. The authors' statements about sheepsfoot rollers, for example, cannot be applied generally and certainly do not apply in Britain, while the simple treatment of the moisture-density relationship in Chapter 8 has been shown in Technical Paper No. 17 of the Road Research Laboratory to be quite inadequate. Apart from these minor faults the book is excellent and to be recommended.

W. FISHER CASSIE

**Monastic Sites from the Air,** by *David Knowles* and *J. K. S. St. Joseph*. (Cambridge air surveys *series*.) 11 in. xxviii + 283 pp. incl. pls. text illus. Cambridge: U.P. £2 15*s.*

This is the first of a series of surveys planned by the Cambridge University Press to illustrate the uses of air photography in various fields of knowledge. It consists of air photographs of 127 monastic sites taken by Dr. St. Joseph, with notes upon each, and a general introduction to monastic planning by Professor Knowles. The book is designed to give the general reader an introduction to the monastic remains of this country and to serve the specialist as a supplement to the detailed plans and descriptions that in many cases already exist.

The photographs include sites in all states of preservation, from Durham Cathedral with its buildings substantially intact to others so derelict that some effort is required to discover where the buildings stood. The views are taken obliquely to show both plan and elevation, and as one would expect are particularly successful in the case of fully explored ruined sites, such as those of the Ministry of Works.

It is where the remains above ground are scanty or have vanished altogether that the photographs are disappointing. There is surely a strong argument for taking these sites from directly overhead so that the fragments of the plan can be read together without the complications of perspective, and to a layman it is surprising that so little use has been made of the early morning or late evening sun to throw the contours of the site into relief. Again, Dr. St. Joseph has several excellent views, such as that of the abbey of Robertsbridge in Sussex with the foundations showing through the parched grass; but there must be other sites that if photographed at the right time would have been equally revealing. Dr. St. Joseph, however, has brought together a fine collection of photographs and will have the gratitude of everyone who takes the least interest in the subject.

Professor Knowles's notes upon the sites are always clear and concise, and his references to the existing monographs and papers essential to any serious student. His introduction is equally admirable. He shows not only how the buildings were planned but why they took the form they did and why the usual arrangements were sometimes departed from. The book is attractively produced and I can think of no better inducement to go and look at the places, nor of a better corrective to the curious information one often hears and sometimes reads upon the spot.

OSWALD BRAKSPEAR [*A*]

**An Introduction to Elizabethan and Jacobean Architecture,** by *Marcus Whiffen*. (Introductions to architecture series.) 9 in. × 7 in. 48 pp. (incl. front.) plus (48) pls. text illus. Art & Technics. 1952. 15*s.*

Short as it is, Mr. Whiffen's book gives the clearest and best account available of Elizabethan and Jacobean architecture in the light of our present (still very inadequate) knowledge. He begins with a section on building methods and draws the conclusion that there is a relationship between the tendency to build by contract rather than by direct labour, and the maturing view of the artistic unity of a great building. 'The importance of the rise of the contract system', he says, 'is due to the fact that it puts a premium on the preparation of exact drawings and thus paved the way for . . . the professional architect.' This principle of adequate preparation—stressed by Alberti and all who followed him—certainly has two aspects, the economic and the aesthetic. When Elizabethan writers insist, as they commonly do, on the importance of a 'model', they are moved, usually, more by economic than aesthetic considerations: the famous passage in *Henry IV*, Part 2, for instance, where Lord Bardolph applies the 'model' metaphor to military preparations, the emphasis is wholly on measurable resources. So it is in Sir Henry Wotton's recommendations of 1624. But the feeling for visible evidence of preconceptions was there too. Expediency and Alberti, prudence and magnificence, ran together.

The emerging architect makes his appearance in a section on Thorpe and the Smythsons. There is no getting away from the importance of Robert Smythson—he is the one architectural character of the Elizabethan period to whom the epithet 'great' might reasonably be applied. Thorpe is only one of a group of smaller men whose names appear in the Royal building accounts and who seem to have sold 'platts' and 'uprights' to gentlemen who required (and sometimes used) them. It is only the survival of his collection of plans which has made him famous—famous enough, indeed, to have a statue on the façade of one of London's largest public buildings!* This book of plans Mr. Whiffen sees as the beginnings of a publication on the lines of Du Cerceau's *Les Plus Excellents Bâtiments*: an interesting suggestion against which, however, is the possibility that Thorpe's collection may be singular only in its survival and that every considerable craftsman and surveyor had his own book of profiles, ornaments or 'platts', for his own information and to pass on to his heirs. It was a very old practice.

On planning Mr. Whiffen rightly stresses the wholly pragmatic relationship of plan to elevation in early Elizabethan work and the gradual ascendancy of the hall as a dominating element on the main axis. He might have quoted one of the few scraps of mid-Elizabethan architectural criticisms which we have—Burghley's comment on the new Holdenby, 1579: 'Being led by a large, long, straight fair way, I found a great magnificence in the first or front pieces of the house, and so every part answerable to other, to allure liking.' The idea of 'answerable' pairs was the leading ambition, culminating in the extraordinary dramatic build-up of Audley End.

Among the most curious problems in Elizabethan design is the frequent affection of a castle-like plan or silhouette. Mr. Whiffen touches on what he calls the 'minor Gothic revival' of the Elizabethans, but 'revival' is scarcely the word, for the castle already had a romantic appeal in Malory's time. There were sham castles for jousting in the Hampton Court tilt-yard and *le Fortresse Dangerus*, filled with fair damsels, was a feature of one of Henry VIII's parties at Greenwich in 1513. Pavilions and banqueting-houses often had plans quite comparable to Henry's southern forts and the great centre mass of Wollaton is, no doubt, intended to be a mighty pavilion in

* The Victoria and Albert Museum.

this taste—a realisation in stone of what was commonly done in canvas or plaster.

The illustrations, which form an important part of the book, could hardly have been better chosen. The only serious omission is Wimbledon, of whose importance as a milestone in the Elizabethan story Mr. Whiffen cannot be unaware. One still has to go back to Gotch for anything like a complete survey of surviving Elizabethan material, but Mr. Whiffen's incisive epitome will have a greater appeal to the modern student.

JOHN SUMMERSON [A]

**Architecture: Five Thousand Years of Building,** by *Joseph Watterson*. 9¼ in. xix + 399 pp. + pls. text illus. New York: W. W. Norton; Lond.: Geo. Allen & Unwin. [1950]. £2 5*s*.

The author has written his own review in his Foreword, when he stated that 'this book makes no pretension to scholarship—indeed, I could not write a scholarly book, nor do I wish to'. It is a compendium of architectural history, of a type which has been popular in England in the past, and is intended for the American in the street. It might well rest at that, for there are too many inaccuracies in the text to satisfy a more exacting reader, who may already have some little knowledge of the evolution of Classical and Renaissance architecture.

The best chapters deal with America, for here Mr. Watterson is on firmer ground. Even so, the Roger Morris house is not the only pre-revolutionary house with a two-storey portico; there is Shirley in Charles City County, and the early building at Monticello.

In spite of these reservations, it can be fairly stated that the text is never boring. The diagrams are usually good, though some are incorrect. It is unfortunate that the appearance of the book is marred by two crude reproductions of Doric and Ionic columns which are printed on the jacket.

J. QUENTIN HUGHES [A]

**Background to Hospital Planning,** by *H. W. C. Vines*, M.A., M.D., 8½ in. 86 pp. text illus. Faber & Faber. 1952. £1 10*s*.

Professor Vines's book will interest architects who work on hospital design. He points to many of the salient weaknesses in our hospital services today and at the same time shows the way to possible future developments. His book should stimulate many concerned with the working of hospitals to fresh and purposive action.

He calls for a flourishing school of hospital architecture; for an experimental approach to planning; for an ever closer integration of expert advice in the design of hospital building and, in particular, for co-operation at every stage between doctor and architect.

He draws attention to the 'unhappy triumvirate'—'guesswork, opinion, and probability'—which in this country, in the absence of any established data relating the need for hospital services to population figures, all too often control the overall size of our hospitals and the allocation of their internal space.

In a closely reasoned chapter on ward planning, Professor Vines concludes against the traditional 'Nightingale' ward, with the beds facing the windows, even in the modified forms sometimes still advocated. He favours a ward broken up into comparatively small units with a maximum of eight beds in each room arranged parallel with the outside wall, and with 20 per cent of the total beds in single rooms. He feels that the traditional argument for the large ward—cross ventilation—is unproven, and that on the contrary smaller sick-rooms check the spread of infection amongst patients. This opinion from a pathologist of Professor Vines's eminence is most welcome.

A chapter of special interest to architects is that in which Professor Vines studies the problems of the hospital kitchen. Here it is stated that today the patient's diet may form only one-quarter of the maximum load on the kitchen and, where this is a single cooking centre, catering for the patient tends to forfeit its rightful share of attention.

Architects and others who have worked for a more humane feeling in hospitals, with all that this means to planning and design, will be greatly encouraged by this book, in which a humane and progressive point of view is put forward persuasively by one of our leading medical authorities.

R. LLEWELYN DAVIES [A]

**Plastics in Building,** by *Joseph Singer*. 8½ in. 175 pp. incl. pls. text illus. Architl. Press. 1952. 18*s*.

This book, faithfully described on the cover, is a comprehensive textbook giving up-to-date information on the application of plastics in the building industry.

It has been said in some places that writers on this subject devote too much time to a kind of apologia for the limitations of plastics, and do not stress the advantages sufficiently. With materials which are new in the sense of use in building, this is not surprising, the building industry being more conservative than most in its outlook.

This book, however, is a real contribution to the problem. The uses of various kinds of plastics are set out; it is very well illustrated; and if it turns the attention of architects more clearly to the use which can be made of plastics, it will have performed a considerable service to the profession and the industry.

Mr. Singer clearly not only knows the subject from a theoretical point of view, but has had considerable practice in its application, and the title is entirely justified by the contents.

C. H. ASLIN [F]

**Industry and Planning in Stepney. A report,** by *D. L. Munby*. (Stepney Reconstruction Group, Toynbee Hall.) 2½ in. xv + 466 pp. incl. pls. (maps) + (2) folding maps and (1) table. text maps. Lond., &c.: Oxford U.P. 1951. £1 10*s*.

Londoners know Stepney as a congested sprawl of depressed housing, industry and docks, stretching east of the Tower on the north side of the river, pierced by the Commercial and Mile End Roads. It has character, but few visible charms. Heavily bombed in the late war, it provides a fine opportunity for planned rebuilding, and most of the Borough is in fact included in the L.C.C.'s 'Stepney–Poplar Reconstruction Area'. This report is a meticulously detailed survey of the economic and social structure of this part of London, and an examination of its future possibilities within the framework of the County of London Plan.

**York,** by *John Rodgers*; **Salisbury,** by *R. L. P. Jowitt*; **The Three Choirs Cities, Gloucester, Hereford and Worcester,** by *Brian Little*. (All British cities *series*.) 7¼ in. pls., text maps and plans. Batsford. 1951, 1951, 1952. 8*s*. 6*d*., 8*s*. 6*d*., 9*s*. 6*d*.

These three titles in the 'British Cities' series all represent good value for money; all are competently written by reliable authors; all are well illustrated with photographs, supplemented by line drawings and reproductions of old prints and paintings; all contain sketch maps of the main streets and ground plans of the great churches. The serious student will find them useful as introductions to the architecture and history of some of our most interesting cities, but they will be appreciated particularly by the intelligent visitor who needs something more than a guidebook's uninspiring catalogue of facts. Their format is convenient for the tourist's pocket.

J. C. P.

**Spon's Architects' and Builders' Price Book.** 78th ed. (1952–53). Davis, Belfield & Everest, eds. 1952. £1 1*s*.

The 78th edition of Spon's invaluable price book has been published in a larger and handier format. As usual, every effort has been made to provide information that is as up-to-date as possible, and a Stop Press page has been incorporated at the beginning of the text. The method for calculating future price increases is given in the conversion tables.

**Examples of the Design of Reinforced Concrete Buildings,** *&c*., by *Chas. E. Reynolds*. (Concrete series.) 9 in. viii + 214 pp. text diags. Concrete Pubns. 1952. 10*s*.

However carefully Codes of Practice are drafted, some ambiguities and omissions are unavoidable. These deficiencies become apparent only in the application of the Codes to everyday problems, and it is necessary gradually to remove them by reference either to the drafting body where practicable, or to a recognised expert on the subject concerned.

Mr. Reynolds has, for the purpose of his book, designed parts of a reinforced concrete building in accordance with three Codes of Practice: *CP*. 3. Functional Requirements of Buildings: Chapter V, Loading (1952); *CP*. 114. Structural Use of Normal Reinforced Concrete in Buildings (1948); *CP*. 114.100. Suspended Concrete Floors and Roofs, including Stairs (1950). He has not only given detailed calculations and drawings of the building studied, but

has produced tables and charts which are applicable generally to structures designed according to the recommendations of the Codes. Where necessary, the author has given his own comments on and interpretation of the Code requirements.

The book is one which every reinforced concrete designer will find of great value.

**The Origin and Development of Early Christian Church Architecture,** by *J. G. Davies*. 8½ in. xiii + 152 pp. + front. + xv pls. + map. text plans. S. C. M. Press. 1952. £1 1*s*.

Although there has been much speculation about the origins of the early Christian plan forms, and various monographs on individual countries and churches have appeared, a general survey of the whole subject in English is long overdue: Hübsch, *Monuments de l'architecture Chrétienne* (1866), though still useful as a corpus of plans, is out of date; Krautheimer, *Corpus basilicarum Christianarum Romae*, though exhaustive, deals only with Rome and has got only to 'St. E—'; and Deichmann, *Frühchristliche Kirchen in Rom*, though recent (1948) and well illustrated, is in German. This new and comprehensive work is therefore welcome, and shows the astonishing geographical extent and stylistic variety of the churches of the 2nd to the 9th centuries A.D. The one thing lacking is a general historical outline of architectural forms (though there is a chapter on the geographical and historical background); a chronological chart of the whole subject would have been useful.

Instead of the time-honoured 'style' divisions 'Early Christian' and 'Byzantine', the author deals systematically with the two plan-forms—'basilican' and 'central' (or centralised)—and their variations; under the former heading he refreshingly summarises the various theories of origin, coming down on the side of the Roman house (*atrium/tablinum/alae*) prototype. There are original and useful chapters on orientation and furniture and on adjoining buildings, in which the *consignatorium* (i.e. place of sealing), a place adjoining a baptistery for administering Confirmation, makes a novel appearance.

Good plans illustrate the text, and photographic plates help. There are a useful glossary, a good bibliography, and an index to the text only, as unhappily usual). The book gives a clear and readable conspectus of the subject for ordinary readers, while helpfully detailed and documented for the architect and archaeologist.

H. V. M. R.

**La Vie des Monuments Français. Destruction. Restauration,** by *Paul Léon*. 12 in. [580] pp. text illus. Paris: Picard. 1951. £4 4*s*.)

The architectural treasures of France enjoy such a reputation that it will surprise most people to see the deplorable state in which many of them existed less than a hundred years ago. Those who have been engaged in preserving French historical monuments will therefore be grateful to M. Léon for having devoted his talents to making public a complete account of the achievements in this field.

We have in England the Wallace Collection to remind us how many French art treasures were dispersed during the Revolution, but we may forget how many buildings were mutilated or destroyed. Many of the visitors who flock annually to see the Cathedral of Notre Dame in Paris are unaware of the extent to which they are admiring the handiwork of Eugène Viollet-le-Duc. The most impressive photographs in this well-illustrated book are those showing buildings before and after restoration; a large number of buildings had to be partly rebuilt, but many also were restored merely by removing later accretions which had been superimposed by insensitive occupiers or neighbours and which completely nullified the artistic value of the edifice.

The Revolution, armed invasions, the separation of Church and State, and the creation of new roads were the major causes of much of the destruction and mutilation. In addition, local proprietors performed their own private vandalism, whilst the army applied itself with zest to the task of converting architectural treasures into comfortable barracks. Ranged against all these forces and many others, a few men without great influence or funds at their disposal undertook the task of classifying the monuments and saving them for posterity.

The Revolutionary government had, under pressure, made some attempt to protect its newly acquired 'national property,' but the awareness that the Gothic heritage was fast disappearing through neglect came later, and was largely due, as M. Léon recognises, to English influence (although he would appear to confuse the two Pugins, father and son). The subsequent story is traced in detail by the author in all its aspects; a comprehensive account of the many causes contributing to the destruction of ancient monuments in France, and of the measures taken to protect them. At this time, when the château of Versailles is threatened with collapse through lack of funds, M. Léon's book is very opportune; the catalogue of buildings damaged during the two world wars should alone be sufficient to prevent the authorities from hazarding what remains of the material record of French architectural genius.

PETER COLLINS [*A*]

**Here's Hampton Court,** by *Iris Morley*. 2nd ed. 9¾ in. (ii) + 30 pp. text illus. Newman Neame. 1952. 2*s*. 6*d*.
Second edition of a splendid half-crown's-worth—same text, same enchanting drawings by Paul Hogarth, new publishers.

**A Lecture on the Relationship between Painting and Architecture in Renaissance and Modern Times,** by *A. C. Sewter*. 7¼ in. 16 pp. + 16 pls. and pp. of illus. Tiranti. 1952. 4*s*.
Comprising the text of a recent lecture to the Manchester Society of Architects, this little book can be profitably read in half an hour. Twenty-seven photographs, adroitly narrowing the gulf between Giotto and Moholy-Nagy, give point to the author's belief in the vital relationship between the two arts—a belief that we all share.

J. C. P.

**Waterworks Byelaws and Fittings,** by *Delwyn G. Davies*. 7¼ in. 280 pp. text illus. Colliery Guardian Co., for Water and Water Engineering. 1952. £1 10*s*.
Probably the only reference book to cover both waterworks byelaws and fittings. To be commended for its convenient pocket size.

# Correspondence

## THE EGERTON STANDARDS AND THE MODEL BYELAWS

DEAR SIR,—All who are concerned with raising the standard of building construction will be interested in the Model Byelaws recently published by the Ministry of Housing and Local Government, and will be relieved to note that substantial steps have been made towards reaching some of the main objects for which architects and designers generally have been pressing, particularly freedom in the use of new materials, new forms of construction, and layout.

For the first time in the history of the Byelaws a section on thermal insulation has been included. On the face of it this is something. However, on comparing the recommended standard with those suggested in the Housing Manuals and the Egerton Report, quite a shocking disparity is revealed.

Most authorities agree that for external fabric thermal transmittance coefficients in the region of 0·20 are desirable, and relatively easy to obtain at little extra cost. Yet the new Byelaws allow roof and hollow ground floor construction with transmittance values of 0·40, while permitted wall constructions have 'U' values of 0·44 and 0·49.

An introductory memorandum to the Byelaws states that 'adequate thermal insulation in houses is now recognised as an important feature of good building', but also says that the new byelaw 'is drafted specifically so as not to affect the standard traditional methods of building', but as the latter are known to be tragically inadequate, how can the Ministry hope that the new byelaw will be effective?

The memorandum does go on to say that it is hoped materials giving insulation up to the standards of the Housing Manual will be generally used, thus virtually admitting that the new provision is not a byelaw but a pious hope. Worse still, there is every chance that even the well-meaning builders who would build to good insulation standards will imagine that in complying with the new byelaw they are so doing whereas clearly they will be wasting their time and in the long run the nation's fuel.

Yours faithfully,

G. GRENFELL BAINES [*A*]

# Notes and Notices

## NOTICES

**Minutes V. Session 1952–1953**

At the Fifth General Meeting of the Session 1952–53, held on Tuesday 3 February 1953 at 6 p.m., Mr. Howard Robertson, M.C., A.R.A., S.A.D.G., President, in the Chair.

The meeting was attended by about 220 members and guests.

The Minutes of the Fourth General Meeting held on the 6 January 1953 were taken as read, confirmed and signed as correct.

The President delivered his address to architectural students, and Mr. Howard V. Lobb, C.B.E. [*F*], read his review of the work submitted for the Prizes and Studentships, 1953.

On the motion of Mr. W. H. Ansell, M.C., F.S.A., Past President, seconded by Mr. Edward D. Mills [*F*], a vote of thanks was passed to the President and Mr. Lobb by acclamation, and was briefly responded to by them.

The presentation of prizes was then made by the President in accordance with the Council's Award.

The proceedings closed at 7.40 p.m.

**The Sixth General Meeting, Tuesday 3 March 1953 at 6 p.m.** The Sixth General Meeting of the Session 1952–53 will be held on Tuesday 3 March 1953 at 6 p.m. for the following purposes:

To read the Minutes of the Fifth General Meeting held on 3 February 1953; formally to admit new members attending for the first time since their election.

Mr. Osbert Lancaster [*Hon. A*] to read a paper on 'The Future of the Past: Some Thoughts on Preservation'.

(Light refreshments will be provided before the meeting.)

**The Seventh General Meeting, Tuesday 31 March 1953 at 6 p.m.** The Seventh General Meeting of the Session 1952–53 will be held on Tuesday 31 March 1953 at 6 p.m. for the following purposes:

To read the Minutes of the Sixth General Meeting held on 3 March 1953.

To present the Royal Gold Medal 1953 to Monsieur Le Corbusier (Hon. Corresponding Member, France).

(Light refreshments will be provided before the meeting.)

**Lecture, Tuesday 17 March 1953 at 6 p.m.** On Tuesday 17 March 1953 at 6 p.m. Mr. Howard V. Lobb, C.B.E. [*F*], will read a paper on 'Successes and Failures of New Techniques'.

(Light refreshments will be provided before the meeting.)

**Annual Subscriptions and Contributions**

Members' subscriptions and Students' contributions for 1953 became due on 1 January.

The amounts are as follows:

| | £ | s. | d. |
|---|---|---|---|
| Fellows | 7 | 7 | 0 |
| Associates | 4 | 4 | 0 |
| Licentiates | 4 | 4 | 0 |
| Students | 1 | 11 | 6 |

For members resident in the trans-oceanic Dominions who are members of Allied Societies in those Dominions, and for members resident overseas in areas where no Allied Society is available, the amounts are as follows:

| | £ | s. | d. |
|---|---|---|---|
| Fellows | 4 | 4 | 0 |
| Associates | 3 | 3 | 0 |
| Licentiates | 3 | 3 | 0 |

**Formal Admission of New Members at General Meetings.** New members will be asked to notify the Secretary R.I.B.A. beforehand of the date of the General Meeting at which they desire to be introduced and a printed postcard will be sent to each newly elected member for this purpose. On arrival at the R.I.B.A. on the evening of the General Meeting new members must notify the office of their presence and will then take their places in the seats specially numbered and reserved for their use. On being asked to present themselves for formal admission, the new members will file out in turn into the left-hand aisle and after shaking hands with the President (or Chairman) will return to their seats by way of the centre aisle.

Formal admission will take place at all the Ordinary General Meetings with the exception of the following:

31 March 1953: Presentation of Royal Gold Medal.

3 November 1953: Inaugural General Meeting.

**British Architects' Conference Canterbury and Folkestone 10–13 June 1953.** The British Architects' Conference in 1953 will be held at Canterbury and Folkestone from 10 to 13 June at the invitation of the South-Eastern Society of Architects, who will be celebrating their Silver Jubilee. An attractive programme is being prepared.

The Conference Headquarters will be in Folkestone and members are advised to reserve hotel accommodation in Folkestone at the earliest possible moment. Transport will be provided for functions taking place at Canterbury. A list of hotels prepared by the Conference Executive Committee is given below. The accommodation shown has been provisionally reserved until 28 February, and members are advised to make their reservations well before that date.

**The R.I.B.A. Appointments Department.** Members and Students of the R.I.B.A. and the Allied and Associated Societies are reminded that the services of the Institute's Appointments Department are available to employers requiring assistants, and to assistants seeking salaried employment.

Employers are invited to notify the Secretary of vacancies in their offices, giving details of the work to be done, the qualifications required and salaries offered.

Assistants should preferably call at the offices of the Appointments Department, but if this is not practicable, they should obtain from the Secretary an application form, which, when completed and returned to the Institute, will enable the Department either to send the applicants particulars of vacancies suitable to their qualifications and requirements, or submit their names for vacant posts.

Members and Students seeking official appointments should note that normally these are fully advertised in the weekly professional press, and that therefore the Appointments Department do not as a rule notify them to those on the register.

The Institute will also be glad to advise on most matters concerning architectural employment, including overseas appointments.

## BOARD OF ARCHITECTURAL EDUCATION

**The R.I.B.A. Tite Prize and Soane Medallion Competitions 1953.** The attention of intending competitors is called to the fact that the closing date for the submission of forms of application for the Tite Prize is 19 March 1953.

The Tite Prize, a certificate and the sum of £100, for the study of The Architecture of the Italian Renaissance, is confined to Probationers and elected Students of the R.I.B.A. and elected Students of Dominion Allied Societies who have passed the R.I.B.A. Intermediate or equivalent examination, or produce certificates from members of the R.I.B.A. to the effect that they have reached the required standard. Students who have passed the R.I.B.A. Final (Part I and II) or equivalent examination or who will have passed the R.I.B.A. Final (Part I and II) or equivalent examination at the time of the en loge competition are not eligible to compete.

Under the arrangements for the competition only one en loge competition will be held. This will take place in London and at non-Metropolitan centres on Wednesday 22 April 1953.

The Soane Medallion and the sum of £120 is confined to members of the R.I.B.A. and of the Allied Societies Overseas and elected Students of the R.I.B.A. and of the Allied Societies Overseas, who have passed the R.I.B.A. Final (Part I and II) or equivalent examination or who have produced certificates from members of the R.I.B.A. to the effect that they have reached the required standard.

**British Architects' Conference 10 to 13 June 1953. Hotel accommodation provisionally booked**

| HOTELS (Addresses are in Folkestone) | ROOMS: With Double Beds | ROOMS: With Twin Beds | ROOMS: With Single Beds | TARIFF: Bed and Breakfast per person | TARIFF: Bed, Breakfast and Dinner per person |
|---|---|---|---|---|---|
| Grand Hotel, The Leas | 13 | 14 | 35 | From 22/– to 27/–* | From 32/6 to 37/6* |
| with Private Bathroom | 2 | 26 | 2 | From 27/– to 32/–* | From 37/6 to 42/6* |
| Majestic Hotel, Sandgate Road | 10 | 12 | 8 | 25/– | 35/– |
| Salisbury Hotel, The Leas | 10 | 10 | 10 | 25/– | 32/6* |
| Princes Hotel, Bouverie Road West | 8 | 10 | 6 | 25/– | 31/6 |
| Clifton Hotel, The Leas | — | 10 | — | 25/– | 31/– |
| Queen's Hotel, Sandgate Road (*a*) | 20 | — | 10 | 20/– | — |
| Greenwold Hotel, Clifton Gardens | — | 4 | 2 | 17/6 | 25/– |
| Highcliffe Hotel, Clifton Gardens | 5 | 5 | 3 | 17/6 | 23/6 |
| Rasfacet Private Guest House, Bouverie Road West | 4 | 3 | 3 | 12/6 | 15/– |
| Imperial Hotel, Hythe (*b*) | — | 16 | 8 | 25/– | 31/6 |

* Plus 10 per cent Surcharge

These hotels are estimated as being within five minutes' walking distance of the Conference Headquarters, with the exception of (*a*) which is approximately ten minutes' walking distance from the Headquarters and (*b*) which is four miles from Folkestone.

In addition to the above, complete lists of other hotels, boarding houses, etc., may be obtained from the Folkestone, Hythe and District Hotel and Catering Association, 5, Leas Pavilion, The Leas, Folkestone, and the Information Bureau, The Leas, Folkestone.

With regard to the R.I.B.A. Final (Part I and II) or equivalent examination, Students need not have passed the Professional Practice Examination.

The en loge competition for the Soane Medallion will be held on the same day as that for the Tite Prize, i.e. Wednesday 22 April 1953. The closing date for the submission of forms of application is 23 March 1953.

Forms of application for admission to the competitions may be obtained at the R.I.B.A., 66 Portland Place, London, W.1.

**The R.I.B.A. Intermediate Examination, November 1952.** The R.I.B.A. Intermediate Examination was held in London, Plymouth, Birmingham, Manchester, Leeds, Newcastle, Edinburgh and Belfast from 7 to 13 November 1952. Of the 559 candidates examined, 170 passed and 389 were relegated. The successful candidates are as follows:—

Adams: D. A.
Anderson: J. A.
Andrew: E. P.
Austin: J. G. M.
Babister: B. A. W.
Baillie: W. F.
Barnes: J. F. L.
*Barton: A. J. E.
Beale: C. O.
Beattie: W. E.
Bell: G. R.
Bigrave: G. E.
Billam: D. M.
Blewett: Peter
Boanas: Geoffrey
Briggs: D. S.
Bright: I. B.
Brockwell: J. A. C.
Brookes: C. C.
Brooks: M. A.
Brunskill: Alan
Bucklow: Roy
Budds: R. W.
Carpenter: D. C.
Carter: C. M.
Chivers: W. A. B.
Clamp: Henry
Claridge: G. R.
Clerici: S. S.
Clink: J. J.
Cope: N. H.
Counsell: J. G.
Cowling: Raymond
*Crossley: D. P. V.
*Crouch: J. D.
Davey: J. R.
Davies: John
Davis: C. F.
De Gay: A. E.
Dewhurst: R. K.
Diss: R. A.
Doyle: Terence
Duguid: J. E.
Easton: J. S.
Elcock: P. J.
Elliott: R. D.
Ellis: R. G.
Entwistle: D. K.
Fineberg: Basil
Fogg: T. E.
*Forster: A. R.
*Forsyth: J. I.
Gailey: D. T.
Gale: W. F. J.
Gibson: K. R.
Gibson: N. M.
Godding: B. J.
Goldsmith: J. W.
Goodchild: L. H. E.
Goodwin: P. T.
Gower: Tudor
Graydon: R. T.
Griffith: Dennis
Groves: A. J.
Gutteridge: E. H.
Haire: D. A.
Hanson: John
Hart: D. F. (Miss)
Hart: T. S.
Hartnell: T. R.
Harvey: E. M. (Miss)
Hatrick: H. C.
Hay: J. S.
Hayden: A. J.
Head: A. P. (Mrs.)
Heald: M. E.
Hollis: D. S.
Holliss: E. D. M. (Miss)
Holt: J. B.
*Holt: L. A.
Hooper: R. J.
Hopewell: D. J.
Horswell: R. H.
Howard: E. C.
Jamieson: R. J. C.
Jessopp: I. J.
Johnston: J. E. (Miss)
Jones: George R.
Jump: A. N.
Kingston: W. J.
Kirkham: P. J.
Kleiber: Jan
Kneller: R. E.
Kowalski: S. M.
Lambert: W. H.
*Last: M. F.
Lawes: D. S.
Lawson: S. R.
Lee: I. H.
Leeson: J. P.
Liddell: I. T.
Littlejohn: R. D.
Lloyd: Maureen (Miss)
McConville: Laurence
Maclean: G. D.
Mannings: M. J.
Mercer: William
Metcalf: J. A.
Michaelian: Haikaz
Mills: W. G. G.
Moore: J. M.
Murkin: N. D. A.
Naylor: R. J.
Newton: J. W.
Nicholson: T. C.
Nordberg: Joan (Miss)
Offord: M. J.
Oldfield: Frank
O'Neill: Hugh C.
Ormandy: K. J.
*Ormerod: Robert
Padmore: P. M. (Miss)
Paling: K. G. C.
Parker: G. E.
Penning: D. A.
Penrose: W. J. T.
Pickles: Albert
Poole: B. M.
Poole: G. P. F.
Potter: J. M. E.
Prisgrove: R. B.
Revill: G. L.
Richards: William
Richmond: J. M.
Robinson: A. S.
Rupp: M. E. (Miss)
Rutter: W. A.
Sales: B. H.
Sanderson: R. M. K.
Scutt: R. W.
Senior: Brian
Shepherd: J. A.
Sinclair: R. G.
Sloan: W. J.
Smart: B. J.
Smith: Raymond H.
Smith: Ronald F.
Stanton: F. H.
Stapleton: R. C.
Steinkamp: W. E.
*Stewart: David
Strouzer: Cyril
Sycamore: D. M.
Tester: E. A.
Thorpe: M. E. (Miss)
Tompsett: R. H.
Warwick: E. J.
Waterhouse: D. A.
Watkin: J. L.
*Weir: W. D.
West: K. G.
Whitaker: A. D.
White: Robert
Wigg: N. E.
Wilkinson: J. L.
Wilson: W. F.
Wiltshire: K. F.
Winstanley: G. A.
Wistow: G. J.
Wragg: Gordon

* Subject to approval of History Thesis or Theses.

# COMPETITIONS

**Hospital at Doha, Persian Gulf**

The Government of Qatar, Persian Gulf, invite architects to submit designs for a 100 bed hospital, complete with staff quarters, at Doha.

Assessor: Mr. Alexander S. Gray [*F*], of Messrs. W. H. Watkins, Gray & Partners.

Premiums: £1,250, £1,000, £750.

Last day for submitting designs: 15 August 1953.

Last day for questions: 31 March 1953.

Conditions may be obtained on application to: Captain J. E. Stone, C.B.E., M.C., F.S.A.A., Hon. Secretary and Treasurer, International Hospitals Federation. 10 Old Jewry, E.C.2.

Envelopes to be marked 'Doha Competition'.

**Sheffield University Competition**

The University of Sheffield invite architects resident in Great Britain to submit, in competition, designs for certain buildings to be erected on sites within the central area of the University, together with a layout and sketch elevations for other buildings also to be located within that area.

Assessors: Sir Percy Thomas, O.B.E., Past-President, Mr. F. R. S. Yorke [*F*], and Mr. Gerard Young, J.P.

Premiums: £5,000, £3,000, £2,000.

Last day for submitting designs: 31 October 1953.

Last day for questions: 14 March 1953.

Conditions may be obtained on application to: The Secretary, Architectural Competition, The University, Sheffield. Deposit: £2.

**'News Chronicle' Housing Competition**

The NEWS CHRONICLE invite designs from architects, registered and resident in the United Kingdom, for one- and two-storey dwelling houses from 800 sq. ft. to a maximum of 1,000 sq. ft. of floor space within the walls.

Assessors: Mr. Louis de Soissons, O.B.E., A.R.A., S.A.D.G., M.T.P.I. [*F*], Mr. Herbert Tayler, A.A.Dipl. [*F*], Mr. J. Lewis Womersley, A.M.T.P.I. [*A*].

Premiums: Five of 150 gns. each.

Last day for submitting designs: 13 April 1953.

Conditions may be obtained on application to 'Open Architectural Competition,' NEWS CHRONICLE, Bouverie Street, London, E.C.4. No deposit is required.

* Subject to approval of History Thesis or Theses.

**COMPETITION RESULT**

**Glasgow University Faculty of Arts Competition**
Mr. W. N. W. Ramsay [*A*].

# ALLIED SOCIETIES

**West Yorkshire Society of Architects. Annual Dinner-Dance.** The West Yorkshire Society of Architects held their annual dinner-dance at the Queen's Hotel, Leeds, on Friday 5 December. Almost 300 members and guests were present.

Among the guests were the President, R.I.B.A., Mr. Howard Robertson, M.C., A.R.A., S.A.D.G., and Mrs. Robertson; the Lord Mayor and Lady Mayoress of Leeds; the editor of the *Yorkshire Post*; the President of the Leeds Law Society and the City Engineer of Leeds; the Presidents of the Northern Architectural Association, of the Sheffield, South Yorkshire and District Society of Architects and of the York and East Yorkshire Architectural Society; and eminent local representatives of the various societies connected with building, engineering and surveying.

Before the dinner the guests were received by the President of the West Yorkshire Society of Architects, Mr. Noel Pyman [*F*], and Mrs. Pyman and by Mr. and Mrs. Howard Robertson.

Proposing the toast of the R.I.B.A. and the West Yorkshire Society, the Lord Mayor of Leeds spoke briefly of the histories of the two bodies and referred to his desire to see the erection of many well-designed buildings to complete the Headrow. The President R.I.B.A., responding, spoke of the high standing of British architects in the world and said British housing and schools were second to none. The President of the West Yorkshire Society proposed the toast of 'Our Guests' and the President of the Leeds Law Society, Mr. D. Kaberry, M.P., in his response, spoke of the need for rapid, efficient and streamlined building using up-to-date methods.

Dancing went on until the early hours of the morning.

**Suffolk Association of Architects. Annual Dinner.** The annual dinner of the Suffolk Association of Architects was held on 16 January at the Grand Hotel, Felixstowe. Mr. Eric C. R. Sandon [*A*], President of the Suffolk Association of Architects, was in the chair and he, together with Mr. Howard Robertson, M.C., A.R.A., S.A.D.G., President of the R.I.B.A., and Mrs. Robertson, who were the guests of honour, received the members and guests. The President of the R.I.B.A. was accompanied by the Secretary, Mr. C. D. Spragg, C.B.E.

The toast of the 'Royal Institute of British Architects' was proposed by the President of the Suffolk Association who expressed the pleasure of the Association at the presence of Mr. and Mrs. Robertson and Mr. Spragg. He also congratulated the members on their tenacity in finding their way to the function through one of the thickest fogs in history. Mr. Sandon spoke of his association with Mr. Robertson whom he first met as a student when the President was Principal of the Architectural Association School. In his speech Mr. Sandon appealed for research to be made into the old traditions of Suffolk architecture. He was sure that new inspiration would result and that the local architecture would again become vital, original and truly regional.

The President of the Royal Institute in his reply spoke of the review into tendering procedure which the Royal Institute, in company with the other sections of the building industry, had agreed to make at the request of the Minister of Works. After speaking of the position in regard to building materials, Mr. Robertson strongly endorsed the views expressed by Mr. Sandon about the use of local materials and traditions.

Mr. Robert Bond [*F*], President-elect of the Norfolk and Norwich Association of Architects, proposed the toast of the Suffolk Association for whose formation the Norfolk and Norwich Association together with the R.I.B.A. were largely responsible. Mr. Martin J. Slater [*F*] responded to the toast. The toast of 'The Guests' was proposed by Mr. Leslie Barefoot, G.C. [*A*], and replied to by Brigadier Rawdon Briggs, Regional Director, Ministry of Works.

**Birmingham and Five Counties Architectural Association. Annual Dinner.** The annual dinner and dance of the Birmingham and Five Counties Architectural Association was held at the Grand Hotel, Birmingham, on Friday 30 January. Among the guests were the Lord Mayor and Lady Mayoress of Birmingham, Alderman and Mrs. W. T. Bowen, Viscount and Viscountess Cobham, the President R.I.B.A. and Mrs. Howard Robertson, the Vice-Chancellor of Birmingham University Professor H. F. Humphreys, and Mrs. Humphreys, the Pro-Chancellor, Mr. and Mrs. Sydney Vernon, the Director of the Barber Institute of Fine Arts, Professor E. K. Waterhouse, and Mrs. Waterhouse.

Representatives of Allied Societies included; Berks, Bucks and Oxon, Mr. F. A. C. Maunder and Mrs. Maunder; Leicester and Rutland, Mr. Anthony E. Herbert and Mrs. Herbert; Liverpool Architectural Society, Mr. F. J. M. Ormrod and Mrs. Ormrod; Manchester Society, Mr. W. Cecil Young and Miss Young; Northamptonshire, Bedfordshire and Huntingdonshire, Mr. P. G. Copson and Mrs. Copson; Wessex Federal Society, Lt.-Col. Eric Cole.

Guests were received by the President of the Birmingham and Five Counties Architectural Association, Mr. Cecil Fillmore, and Mrs. Fillmore, who were accompanied by the Lord and Lady Mayoress and the President R.I.B.A. and Mrs. Robertson. In all the attendance was 425.

The toast of the City of Birmingham was proposed by the President, Mr. Cecil Fillmore, J.P. [*F*], and the Lord Mayor responded. Viscount Cobham, T.D., J.P., D.L., proposed the toast of the R.I.B.A. and its Allied Societies and the President of the R.I.B.A., Mr. Howard Robertson, M.C., A.R.A., S.A.D.G., responded. 'Our Guests' was given by Mr. C. F. Redgrave [*F*] and the response was by Professor Ellis K. Waterhouse, M.B.E., M.A.

The dinner was followed by dancing.

**Changes of Officers and Addresses**

*Architectural Institute of British Columbia.* President, Mr. J. H. Wade, A.A.Dipl. [*A*], 1020 Government Street, Victoria, B.C.

*Royal Institute of the Architects of Ireland.* Hon. Secretary, Mr. Brendan J. Ellis, 8 Merrion Square N., Dublin.

*Royal Architectural Institute of Canada.* In future Mr. C. J. G. Carroll will be known as 'Secretary' instead of 'Executive Director'.

## GENERAL NOTES

**York Summer School of Architectural Study.** The 1953 York Summer School will be held at St. John's College, York, from 8 to 22 August. Prospectuses will be available towards the end of March from the Secretary, St. Anthony's Hall, York.

The course on the Care of Churches to be held in April is already over-subscribed, but there are still a few vacancies for the second of the general courses on Protection and Repair of Ancient Buildings from 23 March to 4 April. All three of these courses are organised by the York Civic Trust.

**Summer School in Measured Drawing and Architectural History.** Following their successful summer school of 1951, the Berks, Bucks and Oxon Architectural Association, have decided to hold one at Oxford during the last two weeks of July. Residence will be at Magdalen College, by permission of the President. In addition to normal measuring work, students who so wish may embark upon specialised studies of form or construction. Lectures will be given and tours are being arranged. Application should be made to either of the joint Hon. Secretaries, Mr. E. Lassetter [*L*], Somerset House, Reading (Reading 60076), and Mr. J. Brosgall, the Southern Regional Council for Further Education, Shire Hall, Reading (Reading 2120).

**Presentation to Mr. C. Stanbury Madeley** [*A*]. Mr. C. Stanbury Madeley wishes to thank past and present students of the Birmingham School of Architecture for their very handsome present to him on the occasion of his retirement. He regrets that he is not able to thank them individually and hopes they will accept this acknowledgment.

**The Royal Sanitary Institute: Essay Competition.** The Royal Sanitary Institute are holding two essay competitions as follows: The John Edward Worth Prize of £60 is to be awarded for an essay on 'Internal Planning Lay-out and Equipment of Dwellings to reduce Domestic Work without Loss of Efficiency and within Reasonable Expenditure'; the John S. Owens Prize of £15 is to be awarded for an essay on 'The Location of Industry having regard to the Health of the People'. Particulars of the competitions and copies of 'Instructions to Authors' can be obtained on application to the Secretary, the Royal Sanitary Institute, 90 Buckingham Palace Road, London, S.W.1. The date for submission of essays is 31 December 1953

**The County Architects and City and Borough Architects Societies. Annual Dinner.** On 4 December the County Architects and the City and Borough Architects Societies held their fifth joint annual dinner in the congenial surroundings of the Tallow Chandlers Hall. The two Presidents, Mr. J. Harrison [*A*] (whose turn it was to occupy the Chair) and Mr. Leonard C. Howitt [*F*] received their members and guests. Parliamentary business deprived the gathering at the last moment of the presence of Miss Florence Horsbrugh, M.P., Minister of Education, who was to be the principal guest of the evening. In an informative speech about its history, organisation and functions, Mr. Johnson Blackett [*F*], Hon. Secretary of the City and Borough Architects Society, proposed the toast of the Royal Institute. Replying with wit and candour, Mr. Howard Robertson, M.C., A.R.A., S.A.D.G., President R.I.B.A., spoke in the modest role of an architect in private practice and paid tribute to the achievements of his hosts especially in the building of schools. He was followed by Mr. Leonard C. Howitt, President of the City and Borough Architects Society, who interspersed generous references to the guests with proud allusions to the standing and responsibility of his profession. Sir Sidney Marshall, D.L., J.P., M.P., Chairman of Surrey County Council, replied for the guests; and he was followed by Mr. Harold Conolly [*F*], County Architect of Essex, who proposed the toast of the Local Government Associations. Responding, Sir George Mowbray, Bt., Chairman of the County Councils Association, paid tribute to the work of county and municipal architects, and acknowledged their growing responsibility in local government. Proposing the toast of the two Societies, Mr. C. D. Spragg, C.B.E., Secretary R.I.B.A., spoke appreciatively of the staunch loyalty of their members to the Institute, and assured them of the Institute's constant interest in the welfare and success of the Societies. In a brief speech, Mr. Harrison thanked the guests for their attendance and this brought a thoroughly enjoyable and convivial evening to an end.

# Obituaries

**Henry Vaughan Lanchester,** Hon.Litt.D.(Leeds), Royal Gold Medallist, [*F*]. With the death at the age of 89 of H. V. Lanchester, a great figure passes from the architecture and town planning of the last half-century. His activities were so widespread that the mere list of them, lengthy though it is, which is given below, can do little more than be a mere outline.

Educated privately, he first studied architecture as a pupil of his father, Henry Jones Lanchester [*A*], and was elected Associate in 1889 and Fellow in 1906. He was Owen Jones Student in 1889–90; in 1934 was awarded the Royal Gold Medal and later, the R.I.B.A. Distinction in Town Planning.

From 1896 to 1920 he worked in partnership with another phenomenal figure, A. E. Rickards, one of the greatest designers and draughtsmen of his epoch. Together they built many important public buildings, some of which were won in competition. Their talents fitted admirably and on a high level, Lanchester being a planner as Rickards was a designer. After the death of Rickards, Lanchester continued in practice with G. Lucas and T. A. Lodge during most of the inter-war period. Since the war the partnership has been extended, though Lanchester, in spite of advancing age, never wholly gave up work; he was the kind of man who always worked.

He was a founder member of the Town Planning Institute and served as its President in 1922–23. He was a consultant on many town planning projects, notably for New Delhi, Madras, Zanzibar, Kuala Lumpur, Baroda, Nagpur Improvement Trust and the University of London. This mere list of names does not truly convey the vast field in town planning which he covered, nor his influence on its growth all over the world. He reinforced his example and teaching by his book *The Art of Town Planning*.

Always a facile and expressive writer, Lanchester wrote numberless technical articles and in 1910–12 edited THE BUILDER. His other books were *Talks on Town Planning* and *Town Planning in Madras*. He was a writer and lecturer on civic design at University College, London, and examiner in civic design at Liverpool from 1910 to 1912.

His principal buildings were: Cardiff Town Hall and Law Courts; Hull School of Art; Deptford Town Hall; The Central Hall, Westminster; Third Church of Christ Scientist; Leeds University; Sheffield University; Beckenham Town Hall; Hall at Brondesbury; Birmingham Hospitals Centre; Birmingham

Medical School; Hackney Town Hall; Bolton Technical College; St. Bartholomew's Hospital and Medical School; Science Buildings at Oxford, Cambridge and Belfast Universities; Hospital work at Taunton, Stockton, and Burton-on-Trent; Research Buildings for Messrs. Spillers; Cancer Research Station; Rayon Research Centre; Institute of Animal Physiology; Grassland Research Station; East Malling Research Station; Royal College of Surgeons; Esso refinery, Fawley; Housing estates at Weybridge, Esher, Stockton, Derby, etc.; Factory and offices for Messrs. Bovril; Shop in Bond Street for Colnaghi & Obachi; Palace at Jodhpur, India; Secretariat, post office, theatre and cinema hall, hostels and school in Lucknow; Hostel in Calcutta.

Lanchester's public work for the architectural profession was on the same lavish scale as his other activities. He was a Vice-President from 1913 to 1917 and from 1927 to 1929, a member of the Jury of Assessors in the competition for the R.I.B.A. building, and the first President of the South-Eastern Society of Architects. He was a member of the Council from 1899 to 1922 and from 1924 to 1935—34 years in all—and for the last five sessions he represented the Indian Institute of Architects. He also served, in some cases for very many years, on the following Committees and Boards: Art, Prizes and Studentships, Competitions, Fellowship Drawings, Town Planning and Housing, Annual Dinner, Royal Gold Medal, Board of Architectural Education (and as an Examiner), Registration, Constitutional, Selection and General Purposes, Housing After the War, Sessional Papers and Informal Conferences, London Building Acts Amendment, London Building Acts, Housing Consultative Board for London area, National Housing Policy, Housing, Board of Moderators, Special Committee on Housing Fees, Thames Bridges Conference, Examinations, Salaried Members, A.R.C.U.K. Board of Architectural Education, Air Raid Precautions, Compensation and Betterment, Committee on the Training of Architects in Town Planning, Lectures, Committee on the Teaching of Architectural Appreciation in Schools, R.I.B.A. Reconstruction (and the Public Relations, Press and Planning and Amenities Groups), London Regional Reconstruction. He took a prominent part in the Town Planning Conference, London, 1910, organised by the R.I.B.A., being Hon. Secretary of the Executive Committee and Papers Sub-Committee and a member of the Exhibition Sub-Committee and Entertainments Sub-Committee. He has also served as President of the British Section, Franco-British Union of Architects and as a member of the Comité Permanent International des Architectes.

Mr. T. A. Lodge [*F*] writes: It was my great privilege to be in partnership with Lanchester for over 30 years. At the time I was a student the name of Lanchester & Rickards was something to be greatly feared in the competition world, and when, years later, I was called on to replace Rickards, I soon realised what a very great man Lanchester was. He was above all else a master of planning and would solve the most difficult problem in a way that few could have surpassed; but one must not dissociate his planning from his great knowledge of construction, for it was the combination of the two qualities that enabled him to produce such delightful plans as that of the palace at Jodhpur. He seldom required the services of the engineer and he often said to me that he felt he was more an engineer than an architect. With that I cannot agree, it is too modest, but feel he was a complete master of all the qualifications that go to making a really great architect.

It always greatly amused him to tell of a visit to India when he found the builder and the workmen unwilling to continue the erection of the great brick dome over the Council Hall at Lucknow. It spanned 80 ft. and was but 9 in. thick at the top. They felt that to add even one more ring of bricks would mean collapse and certain death, but when the great master himself went up and continued to build, they were inspired and went on to completion. Perhaps this illustrates his complete confidence in his work.

I was always impressed by his exceptional knowledge of the world in general, India in particular. He had travelled much and understood so completely the ways and customs of the people in the many countries in which he was building.

He was a great worker with an exceptional brain, so active that he could plan a large building in but a few days, and on more than one occasion he has put his scheme, when complete, away in a drawer for several weeks lest the client should think the work done was too easy and did not merit the fee. No problem was too difficult for him and the more complicated it was the more he would enjoy it. Architecture was not only his work but his whole life and he had few other hobbies. He took no great interest in sport and his spare time in later years was given to his writings and his books, which gave him sincere pleasure.

Very many have passed through his office both as partners and assistants and many have gone far up the ladder of success. I think they would all express thanks for the kind way he would explain and help us all even with the smallest detail.

I shall always remember him seated in the window oblivious to anything and anybody at the back of the room, however important, intent on his drawing board, humming a faint tune and with a small column of smoke rising from the cigarette which he continually smoked.

Throughout he was helped by Mrs. Lanchester whose support and inspiration must have greatly affected his whole career. Herself so well known socially at the Institute, she travelled with him to India and other countries and was at all times interested both in the office and his work.

The profession has lost a great architect, the Institute a keen supporter, and I myself look back with gratitude on a wonderful partnership.

Mr. L. M. Chitale [*F*] of Madras also writes: For over sixty years Dr. Lanchester devoted his matchless energy towards planning and designing, town planning and architectural education, authorship and art. Whether it was the designing of a monument or a mammoth hospital; rebuilding of a city or reforming a housing scheme; formulation of a curriculum or the adjudication of a competition, Dr. Lanchester had a place in Britain. The part he played in moulding and guiding architectural education is not less memorable. His interest in art was abiding and he deplored the tendency of the age—to quote his own words—'to regard art, not as embracing an attitude towards life, but as only to be taken note of at recognised times'.

India will remember this outstanding British planner and architect, if not for the many monumental works he has left in this country, at least for the regard he evinced for Indian art, tradition and culture. The magnificent palaces of Jodhpur, among other buildings, testify to his appreciation of Indian art ideals. He refused to transplant exotic art or architectural forms to Indian soil.

I had the privilege of working with Dr. Lanchester for ten years in London and, knowing him intimately for over 30 years, can testify to the keen interest he had in India's welfare and prosperity. Architects and planners all the world over will miss an important figure from their profession and myself a genuine friend and well wisher.

**George Harry Bertram Gould,** A.R.I.C.S. [*A*], Past President of the Essex, Cambridge and Hertfordshire Society of Architects, died 6 October 1952 at the age of 73.

Mr. Gould served his articles with Messrs. Brown & Burgess, Ipswich, and in 1911 started in practice in Clacton, where he continued throughout his life. Mr. Gould was responsible for Clacton Arcade shops and chambers, for the Century cinema and adjoining shops, for a number of private houses throughout the town and for a number of churches in the district. He served on the Urban District Council of Clacton.

In addition to being President of the Essex, Cambridge and Hertfordshire Society 1936–1937, Mr. Gould was at one time Chairman of the Colchester Chapter and represented it on the Allied Societies' Conference.

His son, Mr. Roy Gould [*A*], joined him as a partner in 1946 and now carries on the practice.

**Frederick de Jersey Clere** [*Retd. F*], Honorary Secretary of the R.I.B.A. in New Zealand for over 50 years, died on 13 August 1952 in Wellington, N.Z. He was 96 years of age. Mr. Clere retired only in 1946, and retained his mental faculties until the very end.

He was born in Lancashire in 1856, the son of the Reverend Henry Clere, and after leaving school was articled to Mr. Edmund Scott, an ecclesiastical architect of repute. Later he became chief assistant to Mr. R. J. Withers, in London.

Mr. Clere went to New Zealand in 1887 and practised in Feilding, which had just been opened up for settlement, and in Wanganui, where he was architect to the Wanganui Education Board from 1883 to 1888. He then went to Wellington, where he practised throughout the rest of his life, with the exception of a short break in England from 1900 to 1901. He took an active part in the formation of the New Zealand Institute of Architects, on the council of which he served for a number of years.

Much of his architectural work consisted of churches, of which he built over 100, Anglican, Presbyterian and Roman Catholic. Three of these were built in reinforced concrete, including the Roman Catholic Church of St. Mary of the Angels, Boulcott Street, Wellington, which is in the Perpendicular style. Mr. Clere also designed a number of domestic and commercial buildings, including the boys' High School, Wellington, banks, abattoirs, office buildings and the two harbour board buildings at the entrance to Queen's Wharf, Wellington.

His hobbies were gardening and water colour sketching, and he was active in forming the New Zealand Academy of Fine Arts and served on its first council.

**John Charles Henry Bawcutt** [*A*] died on 29 June 1952, aged 51.

Mr. Bawcutt was articled to Mr. Harry W. Smith [*F*], of Oxford, and was afterwards an assistant in his office and in other private offices in Oxford. In 1934 he joined the staff of the Architect's Department of the Derbyshire County Council, and in 1947 he was appointed Chief Assistant Architect in the Education Section of the Borough Architect's Department, Derby.

Mr. Bawcutt's hobby was architectural sketching, and one of his drawings—of the George Inn, Norton St. Philip, Somerset—appeared on the cover of the October 1951 JOURNAL.

# Notes from the Minutes of the Council

## MEETING HELD ON THE 3 FEBRUARY 1953

**The Royal Gold Medal.** The Secretary reported that M. Le Corbusier had expressed his appreciation at his election as Royal Gold Medallist for 1953, and that the Keeper of the Privy Purse had written conveying Her Majesty The Queen's approval of the award.

**Appointments.** (A) *R.I.B.A. Representatives on the Architects' Registration Council for* 1953–54: The Institute is entitled to 24 representatives this year, and the following were appointed: Harold Anderson [*F*], D. H. Beaty-Pownall [*A*], J. T. Castle [*A*], L. A. Chackett [*F*], Anthony Chitty [*F*], Dr. F. F. Curtis [*A*], A. G. Sheppard Fidler [*F*], R. O. Foster [*F*], P. G. Freeman [*F*], P. K. Hanton [*F*], J. K. Hicks [*F*], Howard L. Kelly [*F*], Cecil Kennard [*F*], Howard V. Lobb [*F*], E. D. Lyons [*A*], E. D. Jefferiss Mathews [*F*], S. W. Milburn [*F*], T. E. North [*F*], Denis Poulton [*F*], A. L. Roberts [*F*], W. A. Rutter [*F*], Ernest Seel [*F*], H. G. C. Spencely [*F*], R. H. Uren [*F*].

(B) *R.I.B.A. Representatives on Admission Committee, A.R.C.U.K. for* 1953–54. The following four representatives were appointed: L. A. Chackett [*F*], C. J. Epril [*F*], Martin Lidbetter [*F*], Denis Poulton [*F*].

(C) *Ministry of Housing and Local Government Housing Medals* 1953: *Chairmen of Regional Awards Committee.* Region No. 5. London: Sir Charles Mole, M.V.O., O.B.E. [*F*]. Region No. 6. Southern: Colonel R. F. Gutteridge, T.D. [*F*].

(D) *Public Works and Municipal Services Congress: R.I.B.A. Representative on Executive Committee.* P. F. Burridge [*F*] in place of J. Lewis Womersley [*A*].

(E) *Georgian Group Conference, Cheltenham,* 23–26 *March,* 1953: *R.I.B.A. Delegate.* Eric Cole [*F*].

(F) *R.I.B.A. Representative on Codes of Practice Sub-Committees convened by the Institution of Structural Engineers on Pre-stressed Concrete and Factory-made Pre-cast Reinforced Concrete Components.* L. W. Elliott [*A*].

(G) *R.I.B.A. Representatives on B.S.I. Committees.*

(i) *British Standards for Artists' Materials, Conference to consider Formulation of Standards.* Peter Shepheard [*A*], Lawrence Wright [*A*].

(ii) *LBC*/18: *Laboratory Furniture and Fittings.* C. C. Handisyde [*A*], C. W. Sully [*A*].

**The Honorary Associateship.** The Secretary reported that the following had accepted the Council's nomination for election as Honorary Associates: Sir Leigh Ashton, Director, the Victoria and Albert Museum; Sir Ernest Gowers, G.C.B., G.B.E., Chairman, Harlow Development Corporation 1947–50; Eric Gregory, Chairman of Messrs. Lund Humphries and Honorary Treasurer, Institute of Contemporary Arts; Gordon Russell, C.B.E., R.D.I., Director, the Council of Industrial Design.

**The Honorary Corresponding Membership.** The Secretary reported that Professor Joseph Plecnik (Jugoslavia) had accepted the Council's nomination for election as an Honorary Corresponding Member.

**R.I.B.A. Distinction in Town Planning.** By unanimous resolution, the Council conferred upon E. Maxwell Fry [*F*] the R.I.B.A. Distinction in Town Planning.

**Direct Election to the Fellowship.** On the recommendation of the Royal Australian Institute of Architects, Roderic Walter Voller [*A*], Past President of the Queensland Chapter, R.A.I.A., was elected to the Fellowship under the provisions of the Supplemental Charter of 1925, Section IV, Clause 4.

**International Union of Architects: Fourth Assembly and Congress 1955.** It was agreed to invite the International Union of Architects to hold the Fourth Assembly and Congress in London in the summer or autumn of 1955, and that if the invitation is accepted, this Congress will take the place of the British Architects' Conference in that year.

**St. Marylebone Society: Nash Memorial.** The Secretary reported that Mr. John Summerson [*A*] had been appointed by the President to represent the R.I.B.A. at a meeting of the St. Marylebone Society to consider a suitable method of commemorating John Nash in the Borough of St. Marylebone.

**Hospital Planning and Construction.** The Council approved the action taken by the Hospitals Committee, in association with the Nuffield Trust, in agreeing with the Ministry of Health arrangements for the better co-ordination of the study of hospital design and planning. It had been agreed that there was a gap which could be filled with the aid of the Ministry by means of sifting, collating and disseminating the results of research. The proposals for further consideration were that the Ministry should undertake this responsibility with the assistance of an advisory group composed of experts in the field of hospital planning.

**National Survey of Obsolescent Property in connection with the Rent Restriction Acts.** The President reported that he had been in correspondence with the Minister of Housing and Local Government with a view to offering the assistance of the profession in any action which might be taken regionally or locally in regard to the survey and restoration of obsolescent housing property. The Minister had expressed his appreciation of the suggestion and had suggested that further study of the proposals would be necessary.

The President's action was approved and it was agreed to leave it to the Town and Country Planning and Housing Committee to go further into the matter with a view to discussing it with representatives of the Ministry.

**Amendment to British Standard 990.1945: Metal Casement Windows and Casement Doors.** The Council considered a report from the Science Committee regarding the issue of an amendment to B.S. 990.1945. The amendment provided for the reduction in thickness and ostensibly in strength of the metal sections of casement windows and doors, and the R.I.B.A. representatives on the Industry Standards Committee had expressed apprehension at possible results. Agreement of the Committee had been secured for the formulation of a performance standard test within six months, it having been stated that the revised standard windows were already in production for export.

It was agreed to express the concern of the Institute at the danger of reduction in the strength of casement sections, and to state that the Institute could not give its approval of the action taken until there had been an opportunity of examining the proposed performance test.

**Membership.** The following members were elected: As Fellows, 4; as Associates, 31. **Students.** 200 Probationers were elected as Students.

**Applications for Election.** Applications for election were approved as follows: *Election* 31 *March* 1953: As Honorary Associates, 4; as Honorary Corresponding Member, 1; as Fellows, 6; as Associates, 111; as Licentiates, 6.

**Applications for Reinstatement.** The following applications were approved: As Associates, Harold Graves Avery, Mordecai Pearlman. As Licentiate, Walter Edgar Woodin.

**Resignations.** The following resignations were accepted with regret: George Weald [*Retd. F*], Felix Canning [*A*], Mrs. Jean Hunt [*A*], Richard John Lant [*A*], Mrs. Lucy Rose Matthews [*A*], Mrs. Ruth Mary Millar [*A*], Roland Leslie Wall [*A*], Robert Albert Walter [*A*], Finlay Bain [*L*], Joseph John Dobson [*L*], Herbert Salmon Hunt [*L*], Louis Salmond Littlejohn [*L*], William Rankin [*L*], James Watson [*L*].

**Applications for Transfer to Retired Members' Class under Bye-law 15.** The following applications were approved: As Retired Fellows, Theodore Ellis Legg, Francis James Watson-Hart. As Retired Associates, Mitchell Crichton Kay, Brigadier Harold Edward Moore, Albert Isaac Turner. As Retired Licentiates, James Herschell Best, Edward William Bracey, Edward Thomas Rossiter.

**Obituary.** The Secretary reported with regret the death of the following members: Lord Broughshane, K.B.E., D.L., F.S.A. [*Hon. A*]. Charles Henry Gale [*F*]. Henry Vaughan Lanchester, Hon.Litt.D. (Leeds), P.P.T.P.I. [*F*]. Dr. Lanchester was a Vice-President 1913–17 and 1927–29. He was Owen Jones Student 1889–90, Royal Gold Medallist 1934, and was awarded the R.I.B.A. Distinction in Town Planning. He was a member of the Jury of Assessors in the R.I.B.A. New Premises Competition. He was the first President of the South-Eastern Society of Architects and had represented that body on the Allied Societies' Conference. He was a member of the Council from 1899 to 1922 and from 1924 to 1935, and for the last five sessions of that service he also represented the Indian Institute of Architects. He also served, in some cases for very many years, on the following Committees and Boards: Art, Prizes and Studentships, Competitions, Fellowship, Drawings, Town Planning and Housing, Annual Dinner, Royal Gold Medal, Board of Architectural Education (and as an Examiner), Registration, Constitutional, Selection and General Purposes, Housing after the War, Sessional Papers and Informal Conferences, London Building Acts Amendment, London Building Acts, Housing Consultative Board for London area, National Housing Policy, Housing, Board of Moderators, Special Committee on Housing Fees, Thames Bridges Conference, Examinations, Salaried Members, A.R.C.U.K. Board of Architectural Education, Air Raid Precautions, Compensation and Betterment, Committee on the Training of Architects in Town Planning, Lectures, Committee on the Teaching of Architectural Appreciation in Schools, R.I.B.A. Reconstruction (and the Public Relations, Press and Planning and Amenities Groups), London Regional Reconstruction. He took a prominent part in the Town Planning Conference, London, 1910,

being Hon. Secretary of the Executive Committee and Papers Sub-Committee and a member of the Exhibition Sub-Committee and Entertainments Sub-Committee. He was also a member of the British Sections, Franco-British Union of Architects and Comité Permanent International des Architectes. Sir Frank Charles Mears, R.S.A., Hon.R.A., LL.D.(Edin.), M.T.P.I., F.R.S.E. [*F*]. Sir Frank Mears was Pugin Student 1904 and was awarded the R.I.B.A. Distinction in Town Planning. He was a Past President of the Edinburgh Architectural Association and had represented that body on the Council and the Allied Societies' Conference. John Richard Mewton [*F*]. George Alfred Johnson [*Retd. F*]. Thomas Walker [*Retd. F*]. Frederick Candelent Wilson [*Retd. F*]. Sherard John Howard Prynne [*A*]. Alfred Georges Roberts [*A*]. Herbert James Cook [*Retd. A*]. George Harvey [*Retd. A*]. David Alexander Adam [*L*]. James Richard Ansdell [*L*]. Arthur Latimer Dartnell [*L*]. Frank Leslie Eaton, M.B.E. [*L*]. John Wellwood Manson [*L*]. William Alfred Nash [*L*]. John Proudfoot Goodsir [*Retd. L*].

By resolution of the Council the sympathy and condolences of the Royal Institute have been conveyed to their relatives.

# Membership Lists

## ELECTION: 3 FEBRUARY 1953

The following candidates for membership were elected on 3 February 1953.

AS FELLOWS (3)

**Bilimoria: Jehangir Phiroze J.,** Dipl.Arch. (U.C.L.) [*A* 1939], Bombay, India.

**Prior: Alfred Jefferies,** Dipl.Arch. (U.C.L.) [*A* 1936]. Port of Spain, Trinidad.

**Wiggs: Henry Ross,** B.Sc. (Mass. Inst. Tech.), A.R.C.A. [*A* 1923], Montreal, Canada.

AS ASSOCIATES (31)

**Biccard: John Louis,** B.Arch. (Rand), Johannesburg, S. Africa.

**Cameron-Smith: Hamish Ninian,** Pietermaritzburg, S. Africa.

**Campbell: George Alan,** B.Arch. (Rand), Johannesburg, S. Africa.

**Corson: John Cameron,** Dip.Arch. (Auck.N.Z.), Gisborne, New Zealand.

**Cran: James Gordon McLeod,** B.Arch. (Rand), Salisbury, S. Rhodesia.

**Davidson: Eoin Murray,** Dip.Arch.(Auck.N.Z.), Dunedin, New Zealand.

**Elliott: Neil Jerrold,** B.Arch. (Melbourne), Melbourne, Australia.

**Evans: George Ashton,** D.F.C., B.Arch. (C.T.), Johannesburg, S. Africa.

**Fairbairn: Norman David Nigel,** B.Arch. (C.T.), Salisbury, S. Rhodesia.

**Fisher: John Albert,** A.S.T.C. (Arch.), Glenbrook, Australia.

**George: Francis,** B.Arch. (Rand), Johannesburg, S. Africa.

**Glengarry: Angus Bruce,** Dip.Arch. (Auck. N.Z.), Gisborne, New Zealand.

**Halliday: (Miss) Janet Elizabeth,** B.Arch. (Sydney), Sydney, Australia.

**Horsley: (Miss) Mary,** B.Arch. (Sydney), Tumblong, Australia.

**Johnston: Antony Miles,** D.A. (Edin.), Montreal, Canada.

**Kaplan: Benzion,** B.Arch. (Rand), Bethlehem, S. Africa.

**Keen: Warwick Arthur,** Dip.Arch. (Auck.N.Z.), Wanganui, New Zealand.

**Ley: John Patrick,** B.Arch. (Sydney), Double Bay, Australia.

**Lumsdaine: Geoffrey Lawrence,** B.Arch. (Sydney), Mona Vale, Australia.

**Marquis: Geoffrey Frederic,** B.Arch. (Sydney), Sydney, Australia.

**Neighbour: Keith,** North Adelaide, South Australia.

**Parkes: John Gregory,** B.Arch. (Sydney), Sydney, Australia.

**Philpot: Arthur Alfred,** Tusmore, South Australia.

**Sive: Ivan Benjamin,** B.Arch. (C.T.), Pretoria, S. Africa.

**Smit: Andrew Stuart,** B.Arch. (C.T.), Dar es Salaam, Tanganyika.

**Twibill: Geoffrey Kirkham,** B.Arch. (Sydney), Wahroonga, Australia.

**Victor: Stanley,** B.Arch. (Rand), Johannesburg, S. Africa.

**Ward: Norman Walter,** Durban, S. Africa.

**Watson: Thomas Nicolson,** Dip.Arch. (Abdn.), Nairobi, Kenya.

**Whitaker: Edwin James,** Dip.Arch. (Perth, W.A.), Cottesloe, Western Australia.

**Young: Anthony Campbell,** B.Arch. (Rand), Johannesburg, S. Africa.

## ELECTION: 31 MARCH 1953

An election of candidates for membership will take place on 31 March 1953. The names and addresses of the candidates with the names of their proposers, found by the Council to be eligible and qualified in accordance with the Charter and Bye-laws, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, R.I.B.A., not later than Monday 9 March 1953.

The names following the applicant's address are those of his proposers.

AS HON. ASSOCIATES (4)

**Ashton: Sir (Arthur) Leigh (Bolland),** Victoria and Albert Museum, South Kensington, S.W.7. Proposed by the Council.

**Gowers: Sir Ernest Arthur, G.C.B., G.B.E.,** Rondle Wood, Liphook, Hants. Proposed by the Council.

**Gregory: Eric Craven,** LL.D., 139, Swan Court, S.W.3. Proposed by the Council.

**Russell: Sydney Gordon,** C.B.E., M.C., Kingcomb, Campden, Glos. Proposed by the Council.

AS HON. CORRESPONDING MEMBER (1)

**Plecnik: Joseph, Professor,** Technical High School, Karunova, 4, Ljubljana, Yugoslavia. Proposed by the Council.

AS FELLOWS (6)

**Bazeley: Ailwyn Geoffrey,** M.B.E., M.A. (Cantab), A.A.Dipl. (A.1933), Geoffrey Bazeley and Barbary, 15/16 Alverton, Penzance, Cornwall; Tregoddick Farm, Madron, Penzance. F. G. Drewitt, Sydney Gregson, J. H. Crowther.

**Biggar: Gordon Buchanan,** D.A.(Glas) (A.1938), John Melvin & Son, Mar Street, Alloa, Clackmannanshire; 10 Melville Terrace, Stirling, Stirlingshire. Prof. W. J. Smith, F. R. Wylie, G. F. Shanks.

**Kelly: Richard Harrison,** Dipl.Arch.(L'pool) (A.1932). 69 The Albany, Old Hall Street, Liverpool 3; The Spinney, Great Sutton, Wirral, Cheshire. F. J. M. Ormrod, Prof. Sir Patrick Abercrombie, J. H. Forshaw.

and the following Licentiates who have passed the qualifying Examination:—

**Bradshaw: Donald,** Herbert J. Rowse, Martin's Bank Building, Water Street, Liverpool, 2; 162 Eastham Rake, Eastham, Cheshire. H. J. Rowse, Prof. L. B. Budden, F. J. M. Ormrod.

**Cubitt: Frederick William,** 10 Adelaide Street, W.C.2; 24 Oakley Gardens, Chelsea, S.W.3. J. Lomax Simpson, G. A. Crockett, and applying for nomination by the Council under Bye-law 3(*d*).

**Pargiter: Leonard George,** M.B.E., Ministry of Works, Abell House, John Islip Street, S.W.1; 41 Rowlands Avenue, Hatch End, Middlesex. Sir Charles Mole, T. S. Tait, Gordon Tait.

AS ASSOCIATES (111)

The name of a school, or schools after a candidate's name indicates the passing of a recognised course.

**Ashmead: Dennis Harold,** Dip.Arch. (The Polytechnic) (The Poly. Regent Street, London: Sch. of Arch.) 6A St. John's Avenue, Putney, S.W.15. David Jenkin, Dr. J. L. Martin, Colin Lucas.

**Austin: John David Adshead,** Dipl.Arch.(U.C.L.) (Bartlett Sch. of Arch.: Univ. of London). Daylesford Lodge, Whitcliffe Road, Parkstone, Dorset. Prof. H. O. Corfiato, S. Hyde, R. C. White-Cooper.

**Awon: Joseph Alwin,** Dip.Arch. (The Polytechnic) (The Poly. Regent Street, London: Sch. of Arch.). 1, Glenmore Road, N.W.3. J. S. Walkden, Frank Rutter, Bryan Westwood.

**Bailey: Ian Leslie** [Final], 15 High Street, Old Portsmouth. G. S. Bridgman, Harry Sherwood, A. C. Townsend.

**Baker: Stanley Thomas,** Dip.Arch. (The Polytechnic) (The Poly. Regent Street, London: Sch. of Arch.) 10 Rydes Avenue, Guildford, Surrey. J. S. Walkden, E. N. Clifton, W. H. Gunton.

**Barnes: Harry Stuart** [Final]. 44 Chadwick Lane, Heywood, Lancs. Henry Elder, T. J. Cahill, A. Douglas Jones.

**Bond: Derek Owen** [Final]. 9 Poplar Avenue, Eaton Hill, Norwich. R. O. Bond, E. R. Crane, S. J. Wearing.

**Bonnington: John Smith,** B.Arch., Dip.T.P. (Dunelm) (King's Coll. (Univ. of Durham), Newcastle-upon-Tyne, Sch. of Arch.), c/o 25 Briermede Avenue, Low Fell, Gateshead, 9, Co. Durham. Prof. W. B. Edwards, Prof. J. S. Allen, J. H. Napper.

**Bottomley: Derek Stanley** [Final], Hawarden, Grimescar Road, Fixby, Huddersfield, Yorks. Norman Culley, Hubert Bennett, N. H. Fowler.

**Box: Kenneth Edward** [Final], 17 Albany Road, West Ealing, W.13. J. S. Walkden, F. R. S. Yorke, Eugene Rosenberg.

**Braddock: Ian Baxter,** D.A. (Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 8 Admiral Walker Road, Beverley, Yorks. J. G. Warwick, A. W. Ruddle, A. W. Wilson.

**Brown: Robert Gellatly Rigg,** D.A. (Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), Haymount, Cupar, Fife. Leslie Grahame-Thomson, J. R. McKay, W. I. Thomson.

**Burton: Patrick John,** Dip.Arch. (Birm.) (Birmingham Sch. of Arch.), 91 Elm Road, Evesham, Worcs. A. Douglas Jones, C. E. M. Fillmore, T. M. Ashford.

**Callow: Robert Alan,** Dip.Arch. (Leics.) (Leicester Coll. of Art and Tech.: Sch. of Arch.), 3 Swinburne Avenue, Copsewood, Coventry, Warwicks. S. Penn Smith, G. A. Cope, W. H. Buttrick.

**Carhart-Harris: Trevor Leslie,** B.Arch.(Dunelm) (King's Coll. (Univ. of Durham), Newcastle-

upon-Tyne, Sch. of Arch.), 4 St. Margaret's Road, Stanstead Abbotts, Nr. Ware, Herts. Prof. W. B. Edwards, C. H. Aslin, J. H. Napper.

**Chamberlain: Jack Desmond,** Dip.Arch. (Leics.) (Leicester Coll. of Art and Tech. Sch. of Arch.), 28 Alloa Road, Goodmayes, Essex. F. Chippindale, Frank Risdon, A. G. Scott.

**Clifford: William Michael** [Final], East Meon, Nr. Petersfield, Hants. S. G. Livock, G. M. Aylwin, G. I. C. Highet.

**Cope: Ronald Morley,** Dip.Arch. (Nottm.) (Nottingham Sch. of Arch.), 'The Wayre', Harlow, Essex. Applying for nomination by the Council under Bye-law 3(*d*).

**Cowley: Derek Ernest,** Dip.Arch. (Birm.) (Birmingham Sch. of Arch.), c/o County Architects Dept., Worcestershire County Council, 14 Castle Street, Worcester. F. Potter, A. Douglas Jones, T. M. Ashford.

**Crofts: Vernon William** [Final], 'Bayford House', Walk Lane, Wombourne, Nr. Wolverhampton, Staffs. Seymour Harris, L. J. Multon, S. J. Clewer.

**Crowther: John Burton,** B.Arch. (Wales) (Welsh Sch. of Arch.: The Tech. Coll., Cardiff). 'Cornel', Tremorvah, Truro, Cornwall. Lewis John, J. H. Forshaw, C. H. Aslin.

**Daniel: Geoffrey,** Dip.Arch. (Birm.) (Birmingham Sch. of Arch.), 709 Bristol Road South, Northfield, Birmingham, 31. A. Douglas Jones, G. B. Cox, C. E. M. Fillmore.

**Dean: Joseph Malcolm,** Dipl.Arch., Dipl. C.D.(L'pool.) (Liverpool Sch. of Arch.: Univ. of Liverpool), Prescott Farm, Crawford, Upholland, Nr. Wigan, Lancs. Prof. L. B. Budden, Prof. Gordon Stephenson, Prof. R. Gardner-Medwin.

**Del Nevo: Philip John,** Dipl.Arch. (Oxford) (Sch. of Tech. Art & Commerce, Oxford: Sch. of Arch.). 37 Bainton Road, Oxford. J. R. Tolson, Louis de Soissons, Kenneth Peacock.

**Denham: Kenneth Harvey,** Dip.Arch. (Birm.) (Birmingham Sch. of Arch.), 23 Hardwick Road, Streetly, Staffs. A Douglas Jones, G. B. Cox, C. E. M. Fillmore.

**Dove: Myles Harrison,** B.A. (Sheffield) (Univ. of Sheffield: Dept. of Arch.), 24 Broomhall Road, Sheffield, 10. Prof. Stephen Welsh, Richard Sheppard, E. D. Mills.

**Dyer: Roy Ivor,** Dip.Arch. (The Polytechnic) (The Poly. Regent Street, London: Sch. of Arch.), 213 Ellerdine Road, Hounslow, Middlesex. J. S. Walkden, David Jenkin, Dr. J. L. Martin.

**Eagles: Frank Ivor** [Final], 31 Elm Road, Thornton Heath, Surrey. E. M. Rice, J. A. Slater, R. H. Uren.

**Edgar: Kenneth,** Dip.Arch. (Birm.) (Birmingham Sch. of Arch.), 23 Morris Avenue, Wyken, Coventry, Warwickshire. A. Douglas Jones, C. E. M. Fillmore, T. M. Ashford.

**Edmondson: Kenneth Hirst** [Final], 'Fistral Cottage', Green Lane North, Timperley, Cheshire. H. H. Smith, Cecil Stewart, H. T. Seward.

**Fyfe: Robert Thomson,** D.A. (Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), Station House, Cardenden, Fife. Applying for nomination by the Council under Bye-law 3(*d*).

**Garside: John,** B.Arch. (Dunelm) (King's Coll. (Univ. of Durham) Newcastle-upon-Tyne, Sch. of Arch.), 'Rostrevor', 155 Dryden Road, Low Fell, Gateshead-upon-Tyne, 9, Co. Durham. Prof. W. B. Edwards, G. R. Clayton, J. H. Napper.

**Greenen: Stanley Hugh,** Dip.Arch. (Manchester) (Victoria Univ. Manchester: Sch. of Arch.), 37 Holyrood Street, Newport, Isle of Wight. A. C. Townsend, Prof. R. A. Cordingley, J. P. Nunn.

**Hayton: James Donald** (King's Coll. (Univ. of Durham) Newcastle-upon-Tyne: Sch. of Arch.), 164 Mount Pleasant, Throckley, Newcastle-upon-Tyne. Prof. W. B. Edwards, S. H. Lawson, J. H. Napper.

**Henderson: Charles Brian,** D.A. (Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 16 Seton Place, Edinburgh, 9. Frederick MacManus, Edward Armstrong, Basil Spence.

**Hibbs: John Dennis,** Dip.Arch. (The Polytechnic) (The Poly. Regent Street, London: Sch. of Arch.), 42 Wordsworth Avenue, South Woodford, E.18. J. S. Walkden, David Jenkin and applying for nomination by the Council under Bye-law 3(*d*).

**Hickson: Francis Richard,** B.Arch. (Dunelm) (King's Coll. (Univ. of Durham), Newcastle-upon-Tyne, Sch. of Arch.), The Garth, Abbey Street, Kingswood, Wotton-under-Edge, Glos. Prof. W. B. Edwards, Prof. J. S. Allen, J. H. Napper.

**Hodson: Stanhope Corringham,** Dip.Arch. (Leics.) (Leicester Coll. of Art and Tech.: Sch. of Arch.) 233 Cemetery Road, Sheffield, 11. F. Chippindale, S. Penn Smith, G. A. Cope.

**Holliday: Phillip Sutton,** Dip.Arch. (The Polytechnic) (The Poly. Regent Street, London: Sch. of Arch.), 'Sherborne', Mottingham Lane, Mottingham, S.E.9. David Jenkin, Raglan Squire, Basil Hughes.

**Hossack: Patrick Garden Milne,** B.Arch. (L'pool.) (Liverpool Sch. of Arch.: Univ. of Liverpool), 79 Ewhurst Road, West Green, Crawley, Sussex. J. D. Hossack, Prof. R. Gardner-Medwin, A. G. Sheppard Fidler.

**House: Gerald Frederick,** Dipl. Arch. (Oxford) (Sch. of Tech. Art & Commerce, Oxford: Sch. of Arch.), Architects Dept., Boots Pure Drug Co. Ltd., Station Street, Nottingham. L. M. Austin, C. St. C. Oakes, A. E. Geens.

**Hubert: John Keith,** Dip.Arch. (The Polytechnic) (The Poly. Regent Street, London: Sch. of Arch.), 2 Woodlands Road, Barnes, S.W.13. J. S. Walkden, J. Barrington Baker. and applying for nomination by the Council under Bye-law 3(*d*).

**Humphreys: Thomas George,** Dip.Arch. (Dunelm) (King's Coll. (Univ. of Durham), Newcastle-upon-Tyne, Sch. of Arch.), 5 Charlton Road, Fulwell, Sunderland. Prof. W. B. Edwards, S. W. Milburn, Dr. J. L. Martin.

**Jespersen: Ian,** Dip.Arch. (Leics.) (Leicester Coll. of Art and Tech.: Sch. of Arch.), Berry House, Kilby Bridge, Wigston, Leicestershire. S. Penn Smith, A. L. Sharpe, F. Chippindale.

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**Kemp: William Frank,** Dip.Arch. (Nottm.) (Nottingham Sch. of Arch.), Stamford House, 48 Forest Road West, Nottingham. J. W. M. Dudding, F. A. Broadhead, T. N. Cartwright.

**Kleinfeld: Maurice** [Final], 23 Stoneleigh Road, Woodford Avenue, Ilford, Essex. J. M. Scott, L. M. Gotch, Norman Green.

**Knowles: James,** B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool). 'Greystones', Church Fields, Ulverston, Lancs. Prof. L. B. Budden, Prof. R. Gardner-Medwin, B. A. Miller.

**Laburn: James Whitton,** D.A. (Dundee) (Dundee Coll. of Art: Sch. of Arch.), c/o Messrs. Geo. Gordon & Co., 6 Queensgate, Inverness. John Needham, T. H. Thomas, Lieut.-Col. Alex. Cullen.

**Lanham: Douglas Henry,** Dipl.Arch. (Northern Polytechnic) (Northern Poly. (London): Dept. of Arch.), 9 Bushey Road, Ickenham, Nr. Uxbridge, Middlesex. T. E. Scott, S. F. Burley, A. M. Chitty.

**Large: James Alan,** Dipl.Arch. (Leeds) (Leeds Sch. of Arch.), 63 Hill Road, Hawcoat, Barrow-in-Furness, Lancs. W. A. Eden, S. R. Pierce, D. A. Fowler.

**Lea: Clifford,** Dip.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool), 5*d* Portland Place, Lurgan, Co. Armagh, N. Ireland. Prof. L. B. Budden, Prof. R. Gardner-Medwin, B. A. Miller.

**Lemar: Peter Arthur** [Final], 165 Edwin Road, Rainham, Gillingham, Kent. A. L. Farman, B. W. Fitch-Jones, Frank Risdon.

**Lilley: Thomas Leslie** [Final], 317 St. Albans Road, Adeyfield, Hemel Hempstead, Herts. H. K. Ablett, R. F. Dodd, K. A. Stevens.

**Little: John Albinus,** Dipl.Arch. (Leeds) (Leeds Sch. of Arch.), 2 Maltravers Road, Littlehampton, Sussex. W. A. Eden, Cecil Leckenby, J. S. Syme.

**Lofthouse: William Redvers,** Dipl.Arch. (Leeds) (Leeds Sch. of Arch.), 11 Talbot Crescent, Leeds, 8. D. A. Fowler, H. Jackman, N. H. Fowler.

**Longstaff: Jack Hughes,** Dipl.Arch. (Leeds) (Leeds Sch. of Arch.), c/o Messrs. Cook, Culling & Illingworth, Nelson Chambers, Meeting Lane, Kettering, Northants. D. A. Fowler, F. Chippindale, H. R. Surridge.

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**McKillop: Norman Milne,** D.A.(Edin.) (Edinburgh Coll. of Art: Sch. of Arch.) 'Craigielea', Culcabock, Inverness. Lieut.-Col. Alex Cullen, Leslie Grahame-Thomson, J. R. McKay.

**Meikle: Alan,** Dip.Arch. (Birm.) (Birmingham Sch. of Arch.), Wick Grange, Pershore, Worcestershire. A. Douglas Jones, C. E. M. Fillmore, T. M. Ashford.

**Morrocco: Valentino,** Dip.Arch. (Abdn.) (Aberdeen Sch. of Arch.: Robert Gordon's Tech. Coll.), 44 Madeira Street, Edinburgh, 6. E. F. Davies, W. H. Kininmonth, J. G. Marr.

**Mort: Basil James,** Dip.Arch. (Sheffield) (Univ. of Sheffield: Dept. of Arch.), 95 Brookhouse Hill, Fulwood, Sheffield, 10. Prof. Stephen Welsh, H. B. Leighton, H. B. S. Gibbs.

**Mowbray: Philip George** [Final], 'Pinfold Cottage', Broughton, Nr. Preston, Lancs. G. N. Hill, A. T. Nicholson, Thomas Duffy.

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**Pearson: (Miss) Anne Clemence,** B.Arch. (N.U.I. Dublin) (Univ. Coll. Dublin, Ireland: Sch. of Arch.), Ros Feir, Crosshaven, Co. Cork. J. V. Downes, Vincent Kelly, P. J. Munden.

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**Regan: John Derrick,** Dipl.Arch. (Leeds) (Leeds Sch. of Arch.), 51 Portobello Road, Sandal, Wakefield, Yorks. W. A. Eden, D. A. Fowler, F. Chippindale.

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**Sexton: Rowland Basil,** D.F.C. (U.S.A.), B.A.(Arch.) (Manchester) (Victoria Univ. Manchester: Sch. of Arch.), Littlehill, Clement Road, Mellor, Stockport, Cheshire. Prof. R. A. Cordingley, Prof. Clifford Holliday, J. P. Nunn.

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**Smith: Kenneth Horwood** [Final], 80 Churchbalk Lane, Carleton, Pontefract, Yorks. D. A. Fowler, C. Leckenby, S. V. Smith.

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**Thomson: Archibald MacDonald,** D.A. (Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), Northern Ireland Housing Trust, 12 Hope Street, Belfast. A. C. Townsend, C. W. Wilkins, W. H. Kininmonth.

**Urpeth: (Miss) Joan,** B.Arch. (Dunelm) (King's Coll. (Univ. of Durham), Newcastle-upon-Tyne, Sch. of Arch.), North Ridge, Bedlington, Northumberland. Prof. W. B. Edwards, R. Mauchlen, J. H. Napper.

**Ward: Hartley,** Dip.Arch. (The Polytechnic) (The Poly. Regent Street, London: Sch. of Arch.), 'Saint Claire', 23 Church Street, Gamlingay, Sandy, Beds. J. S. Walkden, David Jenkin, J. B. F. Cowper.

**Watson: Newton Frank,** B.Arch. (Dunelm) (King's Coll. (Univ. of Durham), Newcastle-upon Tyne, Sch. of Arch.), c/o Chief Architect's Dept., Stevenage Development Corporation, Aston House, near Stevenage, Herts. Prof. W. B. Edwards, Prof. Clifford Holliday, J. H. Napper.

**Watson: Ronald Ingleton,** D.A. (Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 43 Morton Street, Joppa, Edinburgh. J. R. McKay, Leslie Grahame-Thomson, T. W. Marwick.

**Welton: Robert Arthur,** Dip.Arch. (Cardiff) (Welsh Sch. of Arch: The Tech. Coll., Cardiff), 30 Treherbert Street, Cathays, Cardiff. Lewis John, Sir Percy Thomas, C. F. Jones.

**Welton: Roy Michael,** Dip.Arch. (The Polytechnic) (The Poly. Regent Street, London: Sch. of Arch.), 20A Kings Road, Westcliff-on-Sea, Essex. J. S. Walkden, J. F. Howes, F. L. Jackman.

**Whitefield: John Frederick,** D.A. (Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 1 Mayfield, Princetown Road, Bangor, Co. Down, N. Ireland. J. R. McKay, Basil Spence, W. H. Kininmonth.

**Whitehurst: Kenneth William,** Dip.Arch. (Nottm.) (Nottingham Sch. of Arch.), 130 Woodside Road, Lenton Abbey, Nottingham. C. St. C. Oakes, L. Darbyshire, Percy Bartlett.

**Whitney: John Charles,** Dip.Arch. (Dunelm) (King's Coll. (Univ. of Durham), Newcastle-upon-Tyne, Sch. of Arch.), 26 Windsor Road, Linthorpe, Middlesbrough, Yorks. Prof. W. B. Edwards, A. G. Jury, J. H. Napper.

**Whittlestone: Brian,** Dipl.Arch. (Leeds) (Leeds Sch. of Arch.), 287 Harrogate Road, Leeds, 7. W. A. Eden, D. A. Fowler, F. Chippindale.

**Wilson: Hubert Frank** [Special Final], 'Kintore', Huggett's Lane, Willingdon, Sussex. H. H. Ford, Dr. Charles Holden, L. G. Pearson.

**Woodhead: Dudley Kenneth,** Dip.Arch. (Manchester) (Victoria Univ. Manchester: Sch. of Arch.), 1 Willis Avenue, Sutton, Surrey. Prof. R. A. Cordingley, H. T. Seward, R. G. Bell.

**Young: Robert Hutton,** D.A. (Glas.) (Glasgow Sch. of Arch.), 220 Paisley Road West, Glasgow, S.W.1. F. R. Burnet, James Taylor, Prof. W. J. Smith.

AS LICENTIATES (5)

**Barraud: Ronald,** Ministry of Works, Government Buildings, Chalfont Drive, Nottingham; Saddle Gate, Wollaton, Nottingham. Dr. T. A. Lloyd, J. W. M. Dudding, J. S. Bramwell.

**Dowding: Edward Arthur,** Ministry of Works, Abell House, John Islip Street, Westminster, S.W.1; 6 Cecil Court, Addiscombe Road, Croydon, Surrey. C. G. Mant, W. F. Granger, E. H. Banks.

**Hollingsworth: Harold James,** Messrs. Fisher and Hollingsworth, 23 Lowgate, Hull; 12 Ancaster Avenue, Hull. W. B. Wheatley, G. D. Harbron, R. G. Clark.

**McCutcheon: John Denis,** 4 Queen Street, Coleraine, N. Ireland; 6 Prospect Road, Portstewart. R. H. Gibson and the President and Hon. Secretary of the Royal Society of Ulster Architects under Bye-law 3 *(a)*.

**Tucker: Richard John,** Assistant Architect, Bushey Urban District Council, Bushey, Herts.; 13 Pine Grove, Bushey. C. W. Box and applying for nomination by the Council under Bye-law 3 *(d)*.

# Members' Column

*This column is reserved for notices of changes of address, partnership and partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than of posts wanted as salaried assistants for which the Institute's Employment Register is maintained.*

## APPOINTMENTS

**Mr. George Arthur Atkinson,** A.M.T.P.I. [*A*] has been appointed Architect to the Abercarn Urban District Council as from 2 February 1953. His private address is 69 High Meadow, Abercarn.

**Mr. I. H. L. King,** A.A.Dipl. [*A*] has been appointed Deputy Architect to the South-East Metropolitan Regional Hospital Board. His address is 8/10 Hallam Street, London, W.1.

**Mr. Kenneth Steen,** M.T.P.I., M.I.Mun.E. [*A*], Assistant County Planning Officer, Hertfordshire County Council, has been appointed Deputy County Planning Officer to the West Riding of Yorkshire County Council. His address from 1 April will be 71 Northgate, Wakefield, Yorks.

## PRACTICES AND PARTNERSHIPS

**Mr. Kenneth Anns** [*F*] of 1 Lincoln's Inn Fields, London, W.C.2, has opened a branch office at 1 Church Terrace, Richmond, Surrey, where he will be pleased to receive trade catalogues, etc.

**Mr. Leonard Auton,** Dip.Arch.(Dunelm) [*A*] has opened an office at Regent Buildings, Roker Street, York Road, West Hartlepool, where he will be pleased to receive trade catalogues, etc.

**Messrs. Blackburne, Norburn and Partners** [*FF/L*] of Nairobi, Dar-es-Salaam and Kampala, have pleasure in announcing that they have taken into partnership from 1 January 1953 **Mr. P. B. A. Browning** [*A*]. The name of the firm will remain unchanged.

**Mr. John C. Clayton** [*A*] has commenced practice at 715 4A St. N.W., Calgary, Alberta, Canada, where he will be pleased to receive trade catalogues, etc.

The style of the firm of **Sir Edwin Cooper, R.A. and Son** (Mr. J. Anderson [*A*] and Mr. T. E. Heysham [*F*]) has been changed to **Sir Edwin Cooper, R.A. and Partners.** The address, 4 Verulam Buildings, Gray's Inn, W.C.1, remains unchanged.

**Mr. Denys Hinton** [*A*] has commenced practice at 10A St. Mary's Road, Leamington Spa, Warwickshire (Leamington Spa 3032), where he will be pleased to receive trade catalogues, etc.

**Mr. Robert McKinstry,** B.Arch.(Lvpl.) [*A*] has begun practice at 58 Rugby Road, Belfast, N. Ireland, where he will be pleased to receive trade catalogues, etc.

**Mr. T. F. A. Manning,** B.A. (Arch), [*A*] has opened an office at 8 The Green, Richmond, Surrey, where he will be pleased to receive trade catalogues, etc.

Consequent on the death of his partner, Mr. E. W. Cowell [*A*], **Mr. H. R. Surridge** [*F*] has taken into partnership as from 1 January 1953 his three chief assistants, **Mr. J. D. McArthur,** Dip.Arch.(Leics.) [*A*], **Mr. R. C. Jeffery,** and **Mr. K. J. Allsop,** Dip.Arch.(Leics.) [*A*]. The practice will continue under its present style of **Gotch, Saunders and Surridge.**

**Mr. Ian Tweedie** [*A*] is now in practice at 11 Alva Street, Edinburgh. He will be pleased to receive trade catalogues, samples, etc.

## CHANGES OF ADDRESS

**Mr. J. Brandon-Jones** [*A*] has removed to 2 Redington Road, London, N.W.3 (HAMpstead 4297).

The London office of **Messrs. Clayton and Black and Partners** has been transferred to 10 Bayley Street, W.C.1 (MUSeum 9104). The Tunbridge Wells office has been closed and its business will in future be conducted from Brighton or London.

**Mr. Kenneth D. Coles** [*A*] has changed his address to c/o 940 Summerlea Avenue, Lachine, Montreal, Quebec, Canada.

**Mr. A. J. Goldfinch** [*A*] has removed to 9 Bellevue Road, Scotch Common, Ealing, W.13 (PERivale 0027).

**Mr. G. A. Goulty** [*A*] has removed to 22 Makepeace Avenue, Highgate, N.6 (MOUntview 1643), and will be pleased to receive trade catalogues, etc.

**Messrs. Habershon and Fawckner** (Mr. E. H. Fawckner [*F*]) have removed from 41 High Street, to Midland Bank Chambers, Newport, Mon. (Newport 3021).

**Mr. John R. Harris,** A.A.Dipl. [*A*] has removed his office to 38 Queen Anne Street, W.1 (MUSeum 4445).

**Mr. Alfred W. Lester** [*A*] has removed from 80 Canterbury Road, Leyton, to 24a Eaton Place, London, S.W.1.

**Mr. John L. Midgley** [*A*] has removed to 4 Hartoft Road, Bricknell Avenue, Kingston-upon-Hull, Yorks.

**Mr. Peter Summersgill** [*A*] has changed his address to 1 Sandown Lodge, Portsmouth Road, Esher, Surrey.

**Mr. T. M. Williams** [*A*] has removed to 78 Regents Park Road, N.W.1.

## CHANGES OF TELEPHONE NUMBERS

The new telephone number of **Mr. S. Phillips Dales** [*F*] of 67 Westmoreland Avenue, Squirrels Heath, Hornchurch, Essex, is Hornchurch 6268.

The telephone number of **Mr. J. Ronald Sidwell** [*A*] of 27 Union Street, Coventry, has been changed to Coventry 2393/4.

## PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Member has for disposal an old-established practice in Chesterfield. Box 6, c/o Secretary, R.I.B.A.

Chartered Architect and Surveyor, for many years in important senior post in Civil Service in London, has reached age for compulsory retirement; but being mentally alert, efficient and physically active, wishes to continue working. He therefore seeks partnership in office of an architect or surveyor, practising in London north of Thames. Capital available. Experience in estate management, housing, control of office staff, supervision of contracts, preparation of drawings and specifications, building site and land surveys, war damage claims. Capable user of level, theodolite and typewriter. Can drive car and holds licence. Willing to consider and discuss any proposal for partnership. Box 7, c/o Secretary, R.I.B.A.

Firm of architects with small well-established practice in Central London wish to contact any busy member with a view to associating on a mutual basis. Practice, embracing many classes of work, has been busy and with good connections is expected to pick up again in the future. Box 8, c/o Secretary, R.I.B.A.

Associate, A.M.T.P.I., 45, capable job and office manager, seeks partnership or position leading thereto in London, Herts. or Bucks. Experienced in running good quality practice and large contracts for housing, factories, schools, etc. Box 9, c/o Secretary, R.I.B.A.

Associate, 38, seeks partnership, preferably not in London. Considerable experience in industrial and commercial work. Box 11, c/o Secretary, R.I.B.A.

Partner required by old-established and well-known firm of architects in West Riding town. Applicants should give particulars of education, age and experience. Box 13, c/o Secretary, R.I.B.A.

## FOR SALE

For Sale. Two drawing plan chests, antiquarian size; one oak finish, other white wood primed. Box 5, c/o Secretary, R.I.B.A., or 'phone SLOane 5066.

For Sale. Information Sheets from *Architects' Journal*, complete set to date. *Fletchers Quantities*, 1947 Edition. *Elements of Quantity Surveying*, Willis, 3rd (revised) Edition. Box 10, c/o Secretary, R.I.B.A.

For Sale. *Architect's Year Book*, Nos. 1 and 2; *Examples of the Architecture of Venice* by Ruskin (one of 50 copies of the india proofs of these illustrations, 1887); *The Tour of Dr. Syntax in Search of the Picturesque* (3rd ed., Ackermann, 1813, with Rowlandson's aquatints); *A Tour in Scotland and Voyage to the Hebrides* by Pennant (1772 with engravings); *Scotland Illustrated in a Series of Picturesque Views* (Edinburgh, 1845); *Rome* by Francis Wey (*c.* 1860 with 350 wood engravings); *Prisons* (text by Aldous Huxley, with the 16 plates of the 3rd edition of Piranesi's 'Carceri' etchings loose in folder (one of 1212 copies), and other architectural and topographical books. List on application to Box 12, c/o Secretary, R.I.B.A.

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